THE AMERICAN NEPTUNE

MARITIME HISTORY & ARTS

VOLUME 58, NUMBER 2

SPRING 1998

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THE AMERICAN NEPTUNE

A QUARTERLY JOURNAL OF MARITIME HISTORY AND ARTS

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ISSN 0003-0155 Volume 58, No. 2, Spring 1998
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Salem, Massachusetts

ON THE COVER

William H. Myers
Watercolor

The Master-at-arms flogs a sailor who is secured hands and feet. The drummer sounds rolls as "cat" lashes descend. Captain, first lieutenant, and doctor head the officers and crewmen required to witness the punishment. Gunner William H. Myers painted this watercolor, an early view of punishment and US Navy uniforms on the sloop-of-war *Cyane* off California in 1842–1843.

Courtesy of The Bancroft Library

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BRITON C. BUSCH

The American Neptune (ISSN 0003-0115) is published quarterly at a yearly rate of $39 for individual domestic subscribers, $45 for institutions, $42 for individual foreign subscribers, $48 for foreign institutions, $10 per single issue, by the Peabody Essex Museum,, East India Square, Salem, Massachusetts 01970. To subscribe, write to *The American Neptune*, Publications Department, enclosing a check or money order in US dollars and drawn on a US bank made payable to the Peabody Essex Museum, or your credit card number (MasterCard, American Express or VISA), including expiration date, signature, and telephone number. Manuscripts and editorial correspondence should be addressed to the Managing Editor. Periodical postage is paid at Salem, Massachusetts, and at additional mailing offices. POSTMASTER: Send address changes to *The American Neptune*, Publications Department, Peabody Essex Museum, East India Square, Salem, Massachusetts 01970-3783. Telephone (978) 745-9500, ext. 3172; fax (978) 744-6776, e-mail dori_phillips@pem.org. Visit our website at www.pem.org/Neptune.

EDITOR-IN-CHIEF'S NOTE

Many who read this might suspect that this editorial ought to be about the *Titanic.* I will delay writing about that subject for awhile. But it is true to say that James Campbell's titanic *Titanic* has captured, or recaptured, the attention of many who might become more interested in maritime affairs. And like the *Bismarck,* the history of that great ship leads to many a point of inquiry and discussion. For the moment all I can say is that I am pleased that my father emigrated from England to Canada on the *Laurentic,* another White Star Liner, in 1910. The *Laurentic* boasted steam turbines, and thus served as a prototype for the ill-fated *Titanic.*

This editorial is about another story, and likewise has tangential Canadian and United States connections. A century ago, on 27 June 1898, Captain Joshua Slocum sailed into Newport, Rhode Island, in the famous 37-foot rebuilt oyster sloop *Spray.* It was the completion of an historic voyage around the world. Subsequently Slocum wrote that maritime classic of seafaring: *Sailing Alone Around the World,* first published in 1900 — and, like many another wonderful book, still in print. The *Spray,* which Slocum had rebuilt, sailed from Boston on 24 April 1895, when he was fifty-one years of age. His three-year voyage was the first single-handed circumnavigation. In 1909, Slocum again sailed in the *Spray,* destined for the riches of the Orinoco, but this was his last voyage — and, for that matter, the last for his vessel, for she was never seen again.

Slocum was born in Nova Scotia in 1844 to a farming family, but like many another lad was drawn to the sea (although he never learned to swim). It is said that at age twelve he was caught making a ship model when he should have been grading potatoes and was given a beating. He ran away from home. At age sixteen, he was sailing before the mast in a full-rigged ship from Saint John, New Brunswick, to Dublin. He sailed to the Pacific and back in several vessels, spent some time in the North Pacific fisheries, and then became a master and shipowner of the *Amethyst,* an ancient barque working the timber trade, besides shipping coal, ice, gunpowder and so on as required. One misfortune led to another, and it seems to have been a relief to Slocum when he was offered the remains of the *Spray.*

Slocum and the *Spray* — the romance lives on, and serious inquiry too. There is a Joshua Slocum Society International (15 Codfish Hill Road Extension, Bethel CT 06801) and a Joshua Slocum Centennial Committee of Fairhaven, Massachusetts. In Bristol, Rhode Island, as well as in Newport, Rhode Island and Fairhaven, Massachusetts, Slocum is particularly remembered. Elsewhere we remember his skills and his fortitude. But let Slocum's words be the last here: "To succeed... in anything at all, one should go understandingly about his work and be prepared for every emergency." He

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took with him a small carpenter's kit, a tin clock, some carpet tacks (to welcome unwanted night boarders), and a few other items. "But above all to be taken into account were some years of schooling, where I studied with diligence Neptune's laws, and these laws I tried to obey when I sailed overseas; it was worth the while."

This issue of *The American Neptune* again publishes premier work on maritime history — and a rich variety there is here. We begin with a study of Chinese voyaging through some of those waters that Slocum frequented, the South China Sea. Hans Konrad Van Tilburg, himself a mariner, here launches his scholarly career. Next comes Gary Paine, another pathfinder with what can only be heralded as bright new discoveries on underwater research about eighteenth century French-British warfare in colonial North America. His essay is likewise destined to be a classic. Francis D. Cogliano follows, with a thorough and insightful analysis of the prison experiences of American sailors who found themselves fetched up in English jails during the Revolutionary War. This is frontier research, with many a new finding — and so, too, is Jane Litten's article on Navy flogging of the late 1840s (and its consequences). Our issue is completed with many reviews, book notices and notes which we anticipate our loyal readers will find of value. We always welcome submissions of new and fresh research, and we would be pleased to hear from you on these and other matters.

BARRY M. GOUGH
Wilfrid Laurier University
Waterloo, Ontario

The American Neptune is published winter, spring, summer, and fall by the Peabody Essex Museum, Incorporated, of Salem, Massachusetts, d/b/a Peabody Essex Museum. Officers of the corporation are: John O. Parker, President; Carter H. Harrison, Vice President; C. Richard Carlson, Treasurer; Lea B. Pendleton, Secretary; Richard Wheatland, II, Chairman of the Overseers.

Support of the journal depends upon receipts from subscriptions; no payment is made for contributions or for editorial work. Subscriptions are accepted for a one-year period and begin with the issue published following receipt of the order.

The editors of *The American Neptune* assume editorial responsibility, but they and the Peabody Essex Museum do not necessarily endorse the opinions expressed by authors and book reviewers. "Guidelines for Contributors" to *The American Neptune,* a style sheet for manuscript preparation, will be sent to prospective contributors upon request to the managing editor.

The Peabody Essex Museum gratefully acknowledges the contribution of a grant from Wilfrid Laurier University to assist the Editor-In-Chief in the management and production of this journal.

JUNK PASSAGE THROUGH THE SOUTH CHINA SEA

HANS KONRAD VAN TILBURG

For centuries, Chinese coastal merchants journeyed back and forth between distant overseas communities and the mainland, profiting from the rich Southeast Asian trade. This steady stream eventually expanded to a flood with the advent of large steamships, the passenger liners that provided such a boost to the nineteenth century phenomenon of labor migration. I make no attempt to deal with the totality of Chinese emigration, but instead will focus more narrowly on one particular culture or subculture amidst the general movement of voyagers, the native Chinese passenger trade before the influence of steam vessels, recorded during the early decades of the nineteenth century.

Only a few studies deal directly with the actual mechanism of overseas transportation. This is not due to a lack of scholarly effort, but to the lack of available sources in the field. In 1873, Sir Robert Hart, who operated the Foreign Inspectorate of the Maritime Customs in China, stated: "Of native trade in the interior, and the movement of native produce and foreign goods along the coast in Chinese junks, we know nothing."[1] Chinese sailors and passengers did not, for a variety of reasons, leave behind them copious records of their experiences. Yet, for the crew and passengers, the ship and its voyage through the *Nanyang* must have been an important part of their overseas experience. For many, the passage would have been the first time they ventured beyond their own world. For some it must have been a terrifying, and sometimes fatal, experience.

What did it mean to migrate by traditional craft to communities in Southeast Asia? More importantly, what can an investigation of voyaging conditions tell us about Chinese overseas migration? Marcus Rediker, in writing about the Anglo-American merchant marine, went beyond the view of vessels as simple conveyors of cargoes and floating gun platforms, and found evidence in the eighteenth century for the evolution of labor protest and class consciousness within the crew's shipboard life. "Once assembled on the ship, seamen turned the wooden world to their own purposes, using it as a basis for a new type of mobile community."[2] Paul Gilroy, writing of the Black diaspora across the Atlantic, spoke of the ship as "a living, micro-cultural, micro-political system in motion," one which served as a bonding agent for those unlucky enough to experience the Middle Passage.[3] Sociologists have gone as far as to suggest that the ship was a "total institution," similar in many respects to "the hospital, the army camp, the prison, the cloister, and the boarding school."[4] The seagoing community was a self-contained, isolated community which

---

Hans Konrad Van Tilburg was originally introduced to the ocean on board his father's sloop Brunhilde. *Since then, he has worked as a research and commercial diver in California, Louisiana, North Carolina, and Wisconsin. He holds a Master's degree in maritime history and nautical archaeology from East Carolina University, and is currently in the Ph.D. history program at the University of Hawai'i at Manoa. During the summer, he teaches the world maritime history course and the maritime archaeology techniques course for the University's Marine Option Program.*

This article originated in a Spring 1997 University of Hawai'i graduate history seminar focusing on the topic of world history and diaspora. Thanks go to professors Jerry Bentley, Harry Lamley, and David Chappell for their helpful comments and support along the way.

existed in a world of its own physical conditions, social structure, and mythology. Beyond the mere economic role of the ships, there is a component of identity. Sources regarding Chinese voyaging to Southeast Asia should include evidence of a kind of separate maritime existence and identity for both crew and passengers.

Most readily available to Western historians are firsthand accounts by their own foreign observers. Western missionaries, diplomats, and merchant adventurers found themselves very early on in close contact with coastal populations. Their journals and reports reveal much that has not yet come to light in any other form. Their observations provide important clues to what life was like within the junk trade. This remains true despite the fact that some of their observations reflect more cultural bias than others. Chinese sailing vessels and sailors must have appeared to some of them as a totally alien system of transportation. Some observers, such as Robert Fortune in the mid-nineteenth century, would have preferred to avoid them altogether:

> *On making inquiries as to vessels for the northern ports, I found there was nothing of the kind in port except the native craft — boats and wood junks — which were very unsafe... it would have been an act of madness to have trusted myself in any of these vessels, unless I had been tired of my life, or had all inclination to spend some months as a prisoner on some piratical island.... I determined not to go to sea on a native vessel.*[5]

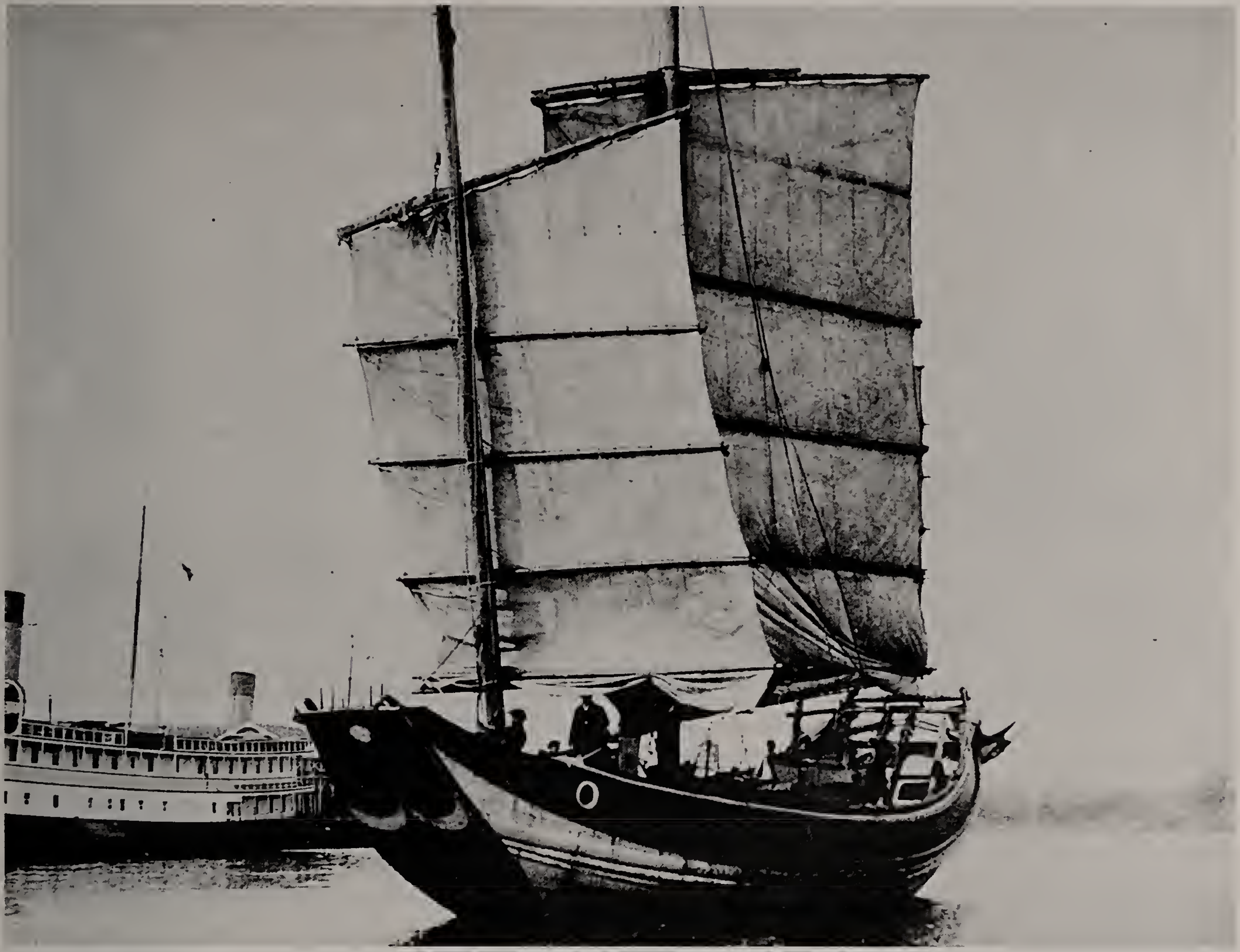
Evidence from what is, unfortunately, a somewhat limited resource can never be considered to be conclusive in any sense. Considering how much is not known about the topic, even somewhat inconclusive impressions might serve to shed some light on the topic. Before discarding observations by outsiders due to their more distant and often biased nature, it might prove useful to know what those observations contain.

Only after certain preparations were ships ready for departure. Once the merchants or owners obtained the proper vessel, cargo was loaded, the crew assembled and passengers put on board, weapons transferred, native customs cleared, and travelers observed appropriate social and religious ceremonies. Most of the ships in the junk trade were 300–700 ton Fujian Province designs, averaging somewhere between seventy-five to one hundred twenty feet in length, although smaller vessels also made the voyage.[6] These three-masted carriers were heavily built, incorporating numerous watertight bulkheads and high transom bows and sterns. Their form was the product of hundreds of years of design evolution, as well as certain limitations imposed on their construction by Imperial regulations. A wide variety of trade goods were in demand overseas, including silks, ceramics, lacquerware, cooking utensils, and foodstuffs for the Chinese communities in Southeast Asia.

Ships in Chinese ports did not maintain weapons on board at all times, but were issued the appropriate arms only right before departure. No more than two cannons, eight fowling pieces, ten swords, ten sets of bows and arrows, and thirty catties of gunpowder were released by the customs administration.[7] Piracy was a major concern for customs officials, and this may partially explain the relative lack of weaponry that commercial ships carried on their voyages. Some defense against piracy on the high seas was necessary, yet the potential for engaging in piratical activities had to be limited. Compared to British and American merchantmen during the eighteenth and nineteenth centuries, these Chinese ships were almost completely unarmed.

Concerns over piracy and smuggling also led to strict attempts by the customs administration to keep track of crews and vessels that went overseas. Owners were required to make the parameters of the voyage quite clear:

> *...the district ruler or magistrate must be informed of the port of destination, the nature and value of the cargo, the*



The *Amoy* arriving in Victoria, British Columbia from Shanghai, 1920s. A traditional working vessel. Courtesy of San Francisco Maritime NHP, Hatch Scrapbook G7.19, 748n.

> *number and names of the seamen serving on board, and the time which must of necessity elapse before the vessel can return. Should she be detained beyond the time specified, the owner or master must obtain from the magistrate of the port of destination a note explaining the cause of the ship's detention.... Should he neglect to produce it, he is compelled to appear before the tribunal of the place, and then and there receives a flogging of forty blows. A similar punishment is also... inflicted upon each member of the crew.*[8]

Enforcement of the proper commercial regulations and tariffs was an overriding priority due to the importance of trade revenue to the Qing empire. Licensing, pilotage, and permit fees also had to be collected. It should be noted that, no matter how strictly the regulations were applied, nothing could really prevent other junks or sampans from bringing last minute passengers or contraband cargo to the departing vessel.[9]

The social and religious ceremonies which took place when ships put out to sea give a deeper impression of what life on board was actually like than details of customs regulations. These practices must be understood within the traditional setting of the potentially hazardous ocean voyage. To begin with, the physical nature of the ship itself reflected an intense concern with proper religious observation. Written characters in well known phrases adorned appropriate features of the vessel, while other religiously significant artifacts were built directly into the hull, keel, mast, and beams.

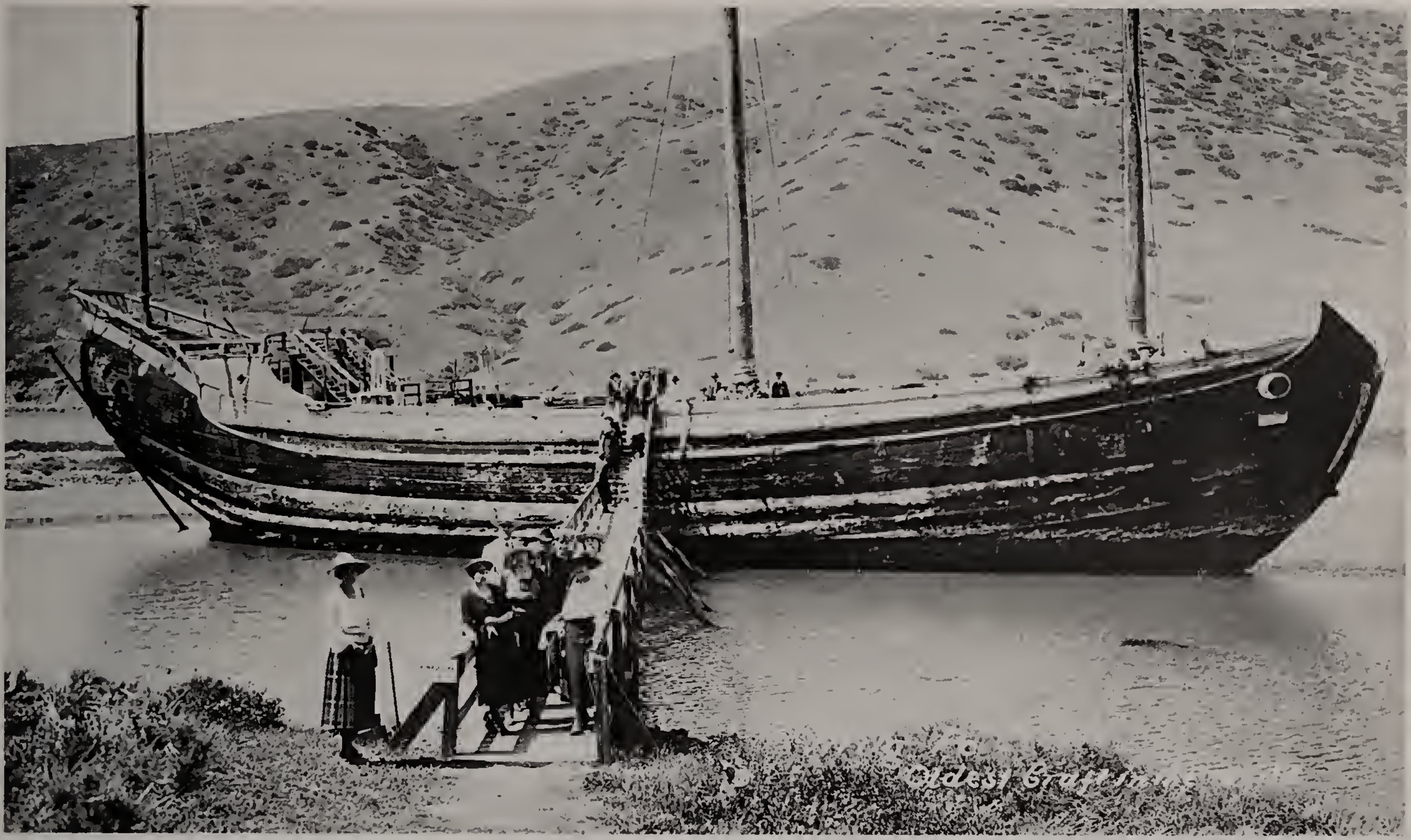
> *The mainmast is placed amidships; the foremast well forward in the bows; and the mizzenmast quite near to the taffrail. Upon the masts, strips of red paper are pasted, with sentences of the following import in large Chinese characters: "The mast is as the general commanding ten thousand soldiers;" "From every side of the compass may fair winds blow;" "May this mast scorn tempests, from whatever quarter of the heavens they may come."*[10]

The oculi, or the eyes of the ship, have for a long time been associated with Chinese vessels and were often believed to be necessary for navigation through dangerous waters. These eyes often gave the bow the appearance of a fish or sea monster. The eyes of fishing vessels appeared to be looking downwards, while those on commercial vessels gazed straight ahead. Rolls of coins and ceremonial mirrors were sometimes buried within the joints of the keel of the ship itself. Placed in patterns resembling specific constellations, this feature goes back at least to the Song dynasty (AD 960–1274) and was still in practice in 1949. This does not seem unlike the practice of European sailors placing coins beneath the maststeps of their vessels (always face up). The function of the eyes at the bow was partially mirrored by the presence of figureheads on Western craft. For the whole of the voyage, both crew and passengers lived surrounded by reminders of the supernatural world, reminders that their small boat operated at the mercy of both natural and supernatural forces.

The ceremonies accompanying the actual departure went well beyond the recognition of ritual decoration on the ship. The permeating influence of Daoist traditions and popular religion feature heavily in John Gray's nineteenth century description:

> *When a junk is ready for sea, a number of Taoist priests are invited to go on board for the purpose of chanting prayers and offering sacrifices to Tien-how. But should a violent storm arise after all these religious observances and threaten the safety of the vessel, there is an all-prevailing opinion amongst Chinese sailors that it is owing to the anger of the gods against some sinful person, or persons, on board....*
>
> *The departure of a vessel from port takes place on a lucky day, selected by Taoist priests, or, in their absence, by astrologers. The day generally selected is either the first or fifteenth of each lunar month, at the new or full moon. As a junk is leaving port, other crews which hail from the same port mount the poops of their junks with the view of propitiating the wind and waves in favour of the departing vessel, some of them energetically beating gongs and tom-toms, whilst others, to dispel all evil influences, increase the din by discharging popguns and fire-crackers. When the vessel reaches the port, religious ceremonies are again observed in honour of Tien-how. The services on such occasions are not usually held on board the junk, but in a temple in honour of the goddess. They consist of thanks giving, prayers, and offerings of boiled fowl and pork, or small portions of the merchandise which the junk has brought to port.*[11]

Tien-how, or Tianfei, was one of the most important goddesses for sailors and overseas communities. She was one of the few minor historic figures who, after becoming a local deity worshiped by coastal people in Fujian, developed into a massively popular goddess in South China during the late Song period. Also known as Mazu, the goddess of the sailors was later elevated by Imperial recognition to the status of official godhead, receiving a title appropriate to her rank.[12] Her popularity continues today, especially in Taiwan. During the early nineteenth century, both crew and passen-



The *Ningpo* on exhibit at Catalina Island ca. 1913. A Fuzhou pole-junk style reportedly built in the late eighteenth century, typical of many long distance vessels. Courtesy of San Francisco Maritime NHP, George M. Beard Collection D8.30, 920n.

gers would have had an understanding for the power of this goddess.

The description of the noisy send off seems very similar to European practices, where ships arriving and departing were saluted by cannon fire and the organized cheers of the vessels' crews. The mention of sacrifices and the selection of the lucky day for departure indicate that the event was firmly grounded in popular traditions, rather than more institutionalized and formal practices (Daoists did not generally encourage sacrifice, for their pure immortals did not need to eat or drink). Karl Gutzlaff, a missionary who traveled along the China coast in the early nineteenth century, kept a keen eye out for the more common or base nature (according to him) of maritime superstitions:

> *When a vessel is about to proceed on a voyage, she is taken in procession to a temple, where many offerings are displayed before her. The priest recites some prayers, the mate makes several prostrations, and the captain usually honours her by appearing in a full dress before her image. Then an entertainment is given, and the food presented to the idol is greedily devoured. Afterwards the good mother [Tianfei], who does not partake of the gross earthly substance, is carried in front of a stage, to behold the minstrels, and to admire the dexterity of the actors; thence she is brought back, with music, to the junk, where the merry peals of the gong receive the venerable old inmate, and the jolly sailors anxiously strive to seize whatever may happen to remain of her banquet.*[13]

Invariably, ships leaving for Southeast Asia sailed with the monsoon winds, meaning that they departed with the northwest monsoon between the months of January and April. Return voyages left Southeast Asia between June and July with the southwest monsoon. Monsoon trade patterns played an important role for most traditional shipping throughout the China coast, Southeast Asia, and the Indian Ocean. Known in the Western Han Dynasty (206 BC–AD 24) as the "ocean ship calling wind," their importance to commercial trade had long been honored:

> *Thirty days after the spring rain,*
> *Comes the ten thousand li sailing wind.*
> *Those songs haunting in the mountains*
> *Suddenly travel down on the waters.*[14]

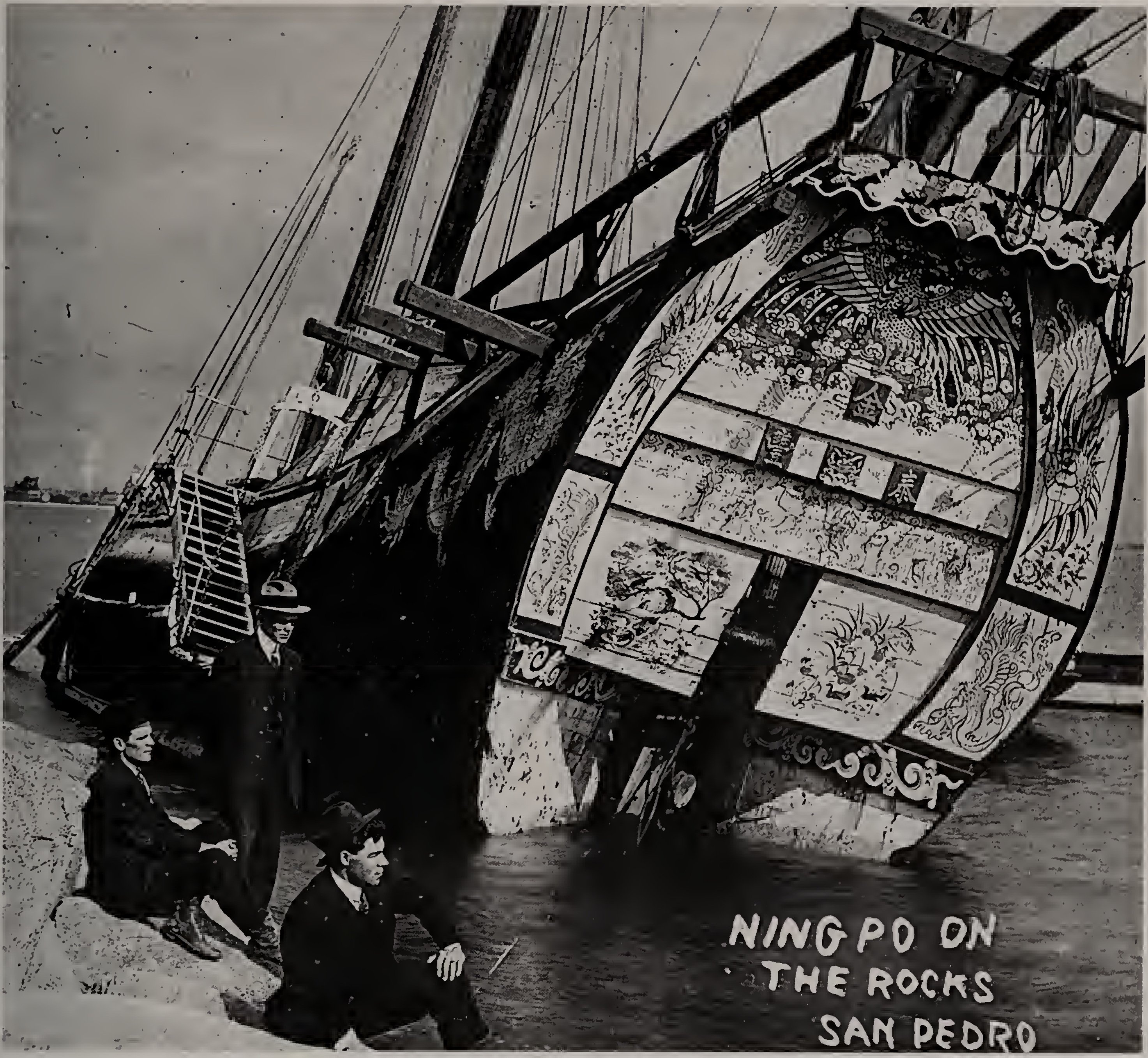
As the sailors themselves were directly responsible for the operations of the vessel and the safety of all those on board, the nature of the ship's crew was central to the success of the voyage. The crews' identity, the way they divided their tasks on board, and their general behavior when not otherwise engaged are all important questions relating directly to the social conditions during the journey. While there is no one work that focuses on these issues, scattered sources give some idea of the men who made the junk trade possible.

The racial makeup of Chinese vessels from China (as opposed to Chinese vessels built and operated overseas) was almost completely homogenous. Crews were not mixed representations of any number of global ports, as became the case with European vessels. They were naturally drawn specifically from the coastal regions of Southern China which were most involved in overseas trade. During the nineteenth century these areas were chiefly in Fujian and eastern Guangdong Province, around Swatow and Amoy. Crews were mainly speakers of the Hokkien and Teochiu dialects, and ship construction and operation was often a business carried out at the extended family or village level. It is also interesting to note that this was a period of feuding and open warfare between lineage groups on China's southern coast, involving all levels of economic competition not only locally but overseas as well.[15] This all suggests that it would have been unlikely to find sailors from different regions, or even different villages, on the same ship. Karl Gutzlaff, among others, noted regional tensions:

> *Several junks were in company with us, and a quarrel between our sailors and some Fuhkeen [Fujian] men broke out, the consequences of which might have been very serious. Some of our men had already armed themselves with pikes, and were placing themselves in battle array... several years ago a quarrel, which originated between two junks, brought all the Fuhkeen and Chaouchow men in the neighborhood into action; both parties fought fiercely...*[16]

Kinship connections, as well as regional characteristics, also served to unite crew members. Selection often depended on association with the captain's clan, or on residence in the village or region where the ship was registered.[17] This degree of paternalism or affinity between captain and crew stands in sharp contrast to European vessels, where the greater social distance between the higher and lower ranks was an intentional feature, central to maintaining strict discipline. As Jennifer Cushman puts it: "There is no evidence that the social hierarchy among the crew of a Chinese junk was governed by a codified set of regulations..."[18] She goes on to describe the crew of one of Gutzlaff's vessels, indicating that the captain was a Chaozhou man as were the sailors, his brother-in-law was the ship's clerk, and his uncle succeeded him when he left the vessel. This observation on social relations has important implications for understanding the structure of command. Relationships on board were not formed along new lines of strict discipline, but based on kinship ranking of the home area. This implies that, unlike European ships, the captain of the junk trade vessel did not have complete authority over all the crew.

> *In fact, the sailors exercise full control over the vessel, and oppose every measure which they think may prove injurious to their own interest; so that even the captain and pilot are frequently obliged, when wearied out with their insolent behaviour, to crave their kind assistance, and to request them to show a better temper.*[19]



The *Ningpo* on the rocks at San Pedro, California. The *Yen* bird (swallow) arising from a story sea, depicted on the transom, signifies a quick passage. Beneath are characters for prosperity and luck, and drawings of the Eight Immortals. Courtesy of San Francisco Maritime NHP, D3.20, 711n.

Although relations might not have been strictly delineated, there were specific roles to fill in order to make the vessel work. Care must be taken, however, when comparing the roles of those officers and crew on Chinese vessels and those on European ships, for there is not always a close correspondence. For instance, the captain of the Chinese vessel not only lacked absolute authority, but had very little to do with navigation during the voyage, this being the chief role of the pilot. Instead, the captain acted more as ship's merchant, or *boshang*. Gutzlaff presents a description of traditional positions:

> *Chinese vessels have generally a captain, who might more properly be styled a supercargo. Whether the owner or not, he has charge of the whole of the cargo, buys and sells as circumstances require; but has no command whatever over the sailing of the ship. This is the business of the Ho-chang or pilot. During the whole voyage, to observe the shores and promontories are the principal objects which occupy his attention, day and night. He sits steadily on the side of the ship, and sleeps when standing, just as it suits his convenience. Though he has, nominally, the command over the sailors, yet they obey him only when they find it agreeable to their own wishes; and they scold and*

> *brave him, just as if he belonged to their own company.... The sailors are divided into two classes; a few, called Towmuh (or head-men), have charge of the anchor, sails, &c.; and the rest, called Ho-ke (or comrades), perform the menial work, such as pulling ropes and heaving the anchor. A cook and some barbers make up the remainder of the crew.*[20]

The majority consisted of the two classes of sailors, those with some training in the specialized operations and those who provided raw labor. The whole crew, except these second class laborers, slept in cabins located at the stern of the ship. The hands bunked down in the hold. Another notable fact about Chinese sailors is that there were more of them per ship than their counterparts on similarly sized European vessels.

> *A Chinese junk is manned with an extraordinary proportion of hands, if compared to European vessels — a circumstance which chiefly arises from the awkwardness of the rudder, the cable and the anchor, and the weight and clumsiness of the enormous square-sails which are made use of. A junk of 8000 piculs, or about 500 tons, requires a crew of ninety men, and the proportion of hands is still greater for vessels of smaller size.*[21]

Chinese crews were not only larger than European crews, but had a quite different relationship to the commanding officer. This is not the greatest difference between the two. The way that the crew was paid suggests profound differences between East and West. On Chinese ships, almost the entire crew was paid not in cash, but in freight space. For instance, the captain received one to two hundred piculs of cargo room, the helmsman fifteen piculs, first class seamen nine piculs, and second class seamen seven piculs each.[22] Common sailors often received only dry rice as provisions, providing the rest of their fare themselves. This scheme was unheard of on Western ships. While officers might claim space in the hold for their own private trading ventures, the common nineteenth century crew was paid wages and had no further interest in the economic outcome. Each Chinese crew member was a merchant voyager, rather than simply a sailor, with a vested interest in the overall success of the journey. The crew's amount of personal cargo carried on any given commercial vessel could be as large as one-third of the ship's total.[23]

> *The several individuals of the crew form one whole, whose principal object in going to sea is trade, the working of the junk being only a secondary object. Every one is a shareholder, having the liberty of putting a certain quantity of goods on board; with which he trades, wheresoever the vessel may touch, caring very little about how soon she may arrive at the port of destination.*[24]

This has implications for the lack of involvement of Western crews in the vessel's economic venture, and occurrence of such well known Western phenomena as mutiny, jumping ship, and coercion of reluctant sailors by roving press gangs. These particular manifestations of a harsh maritime world may not be applicable to the junk trade from China.

Observers seem to be split into two camps regarding the relative amount of skill the sailors had in operating their ships. On the one hand, there is praise for their ability to maneuver the ship. On the other hand, there is disparagement for their seeming lack of discipline, or the absence of coordinated effort.

> *These sailors are not, usually, men who have been trained up to their occupation; but wretches, who were obliged to flee from their homes; and they frequently engage for a voyage, before they have ever been on board a junk. All of them, however stupid, are commanders; and if any thing of importance is to be done, they bawl out their commands to each other, till all is utter*

> *confusion. There is no subordination, no cleanliness, no mutual regard or interest.*[25]

Even the crew's ability to maintain consciousness was brought into question. Concerning one particular helmsman, Gutzlaff records the following:

> *To all his good qualities, he added that of opium-smoking, in which art he had made considerable proficiency. His assistant was quarrelsome, but more attentive to the navigation than any other individual on board; and he also, as is the case with almost all the pilots, was trained up to the use of the drug; after having inspired the delicious fumes, he would often, against his inclination, sleep at his watch. All the principal persons, on whom depended the management of the vessel, partook freely of this intoxicating luxury; by which they were alternately, and sometimes simultaneously, rendered unfit for service.*[26]

The subjective judgment of sailing skill may prove to be beyond the realm of any historic sources. Regarding opium, the testimony of missionaries who were appalled by its use, while at the same time occasionally instrumental in its trade (as translators and guides for foreign opium ships), might be ironic at best. These accounts must serve as no more than impressions. There was, however, distinct note taken of the speed with which the Chinese sailors adapted themselves to foreign vessels:

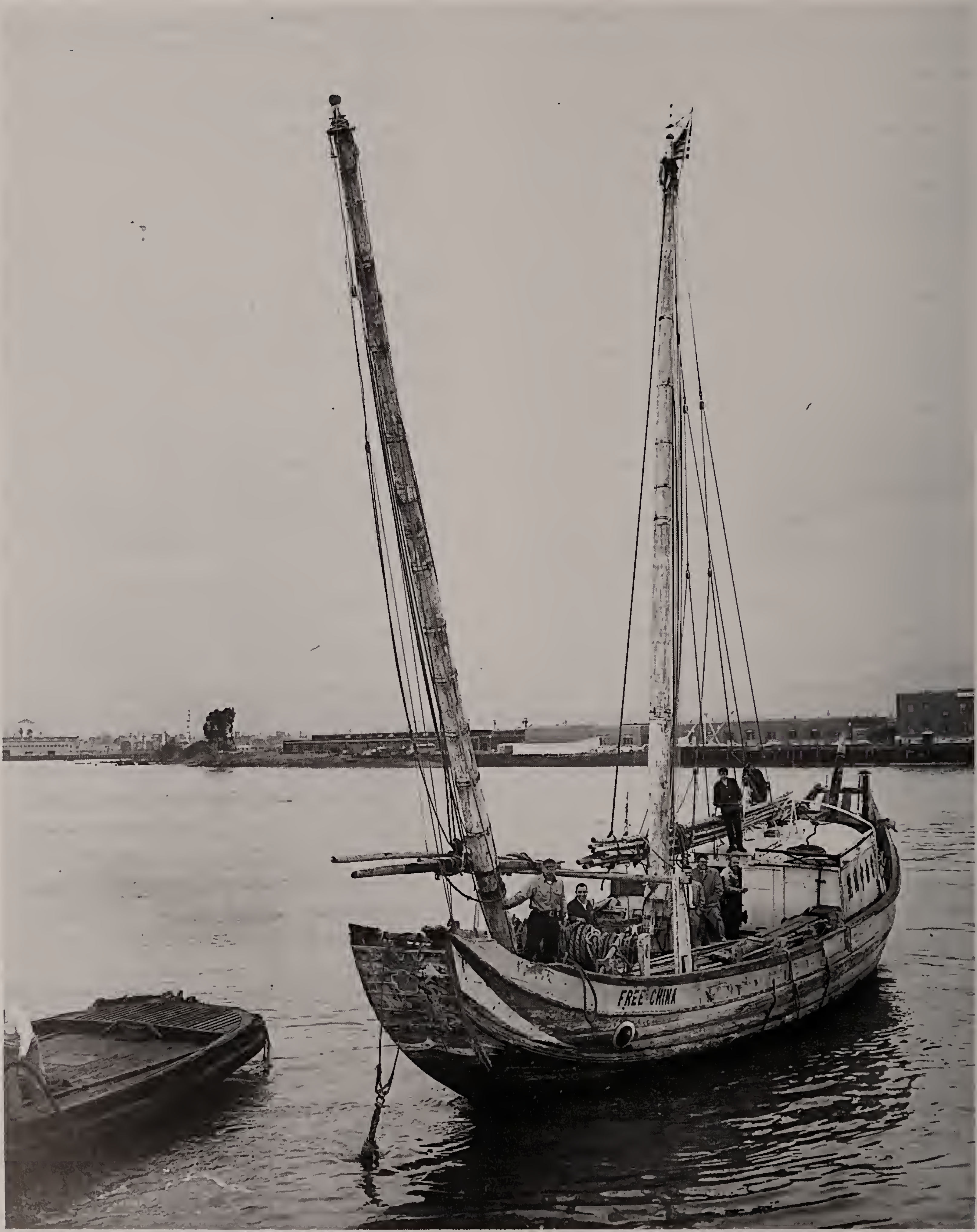
> *[They] quickly learn sea-terms, and many can "handle a vessel" in first-rate style. Those employed in yachts about the Canton river understand their business so well that full charge is given over to them in regattas.... A ship-captain, who took home some Fokien boatmen as sailors, said, on his return, that they were the best men in his ship. It would be well worth the consideration of Her Majesty's Government to employ Chinese as firemen and supernumeraries in steamboats while cruising within the tropics on the east side of the Cape of Good Hope. With proper training they would make excellent sailors, and there would be little difficulty in making good soldiers of them.*[27]

Another way to distinguish sailors from the general population is by dress. Besides a particular gait and the likelihood of enjoying certain notable vices, mariners often possessed distinctive clothing, such as ribbon caps or canvas dungarees in the West. Fujian sailors sported blue jackets peculiar to their profession, according to one report.[28] There is scant reference to clothing for Chinese mariners. By contrast, the lack of covering seems to be more the rule.

> *Upon the coast the poorer classes are still more savage-looking. The fishing-boats are manned by men often perfectly naked. I have seen them, even in cold weather, out at sea in an open boat without a rag of clothing to protect them. These men are quite brown from exposure. It is a fine sight to see a fishing fleet off Namoa, beating out to sea; as many as five hundred boats in sight at once, all the same rig and well matched in sailing. Their crews, poor devils, must have a hard life.*[29]

Given the tropical environment of Southeast Asia and the South China Sea, this habit seems to make sense. The whole of the voyage for typical journeys in the eighteenth and nineteenth centuries took place between the Tropic of Cancer and the Equator.

The identity, classification, pay scale, relative skills, and dress of the Chinese sailor aside, what was the European assessment of his character? These types of questions of a subjective nature encompass a certain degree of cultural preconceptions and ulterior motives appropriate to the times. In short, they appear rife with undisguised bias. For the missionaries, the sailors



The *Free China*, a.k.a. *Song Xiao Li*, in 1955. A Fujian style mid-nineteenth century junk preparing to lay up in Alameda, California. Courtesy of San Francisco Maritime NHP, A5.17, 943n.

were often their initial contacts, seemingly a social class mired so deeply in ignorant and pagan ways that salvation could not arrive too soon. The descriptions of sailors may have served as the strongest possible proof of the need for missionary activity to the readership back in Europe.

> *The Chinese sailors are, generally, as intimated above, from the most debased class of people. The major part of them are opium smokers, gamblers, thieves, and fornicators. They will indulge in the drug till all their wages are squandered; they will gamble as long as a farthing remains; they will put off their only jacket and give it to a prostitute. They are poor and in debt; they cheat and are cheated by one another, whenever it is possible; and when they have entered a harbour, they have no wish to depart till all they have is wasted, although their families at home may be in the utmost want and distress. Their curses and imprecations are the most horrible; their language most filthy and obscene; yet they never condemn themselves to eternal destruction. A person who has lived among these men, would be the best qualified to give a description of Sodom and Gomorrah...*[30]

Needless to say, mariners the world over have usually been drawn from a class of men easily available for dangerous and distant undertakings. Some noted the same rolling gait of the Chinese sailor when on land, a distinct mannerism of walking common to all deep water men ashore. Sailors of the seaport taverns of England could easily fit Gutzlaff's description of Asian crews.

Despite certain exceptions, such as Joseph Conrad or Richard Henry Dana, Western sailors were not generally noted for their literary abilities. The same appears to be true of their Chinese counterparts. Apparently, most Chinese sailors did not possess literary skills. This greatly complicated the task of recording the details of ship construction. G. R. G. Worcester, in the early decades of the twentieth century, found that even the finest shipwrights and captains, whom he met and worked with, could not read or write, nor could their crews.[31] In fact, there were many spoken terms for technical ship components which had no written counterpart at all. This specialized nautical language has been, for the most part, lost in history. This may partially be due to the extended length of time required to become fluent in the classical Chinese language. Only one testimony contradicts this observation.

> *Though most of them were of mean birth, the major part could read, and took pleasure in perusing such books as they possessed. In the libraries of some of them I was delighted to find our tracts. It has always afforded me the greatest pleasure to observe the extensive circulation of christian books...*[32]

Either some of the members of this "most debased class of people" had enough education to become literate, or the necessity of supporting the evangelical mission of delivering texts to China took precedence over actual observations.

It is difficult to get a clearer picture of seamen in China during this period than as simply a loosely based group of laborers from particular regions. In some ways this population seems similar to the *tanjia*, or boat people, a distinct disadvantaged maritime class often not allowed ashore at all. The *tanjia* were mainly coastal fishermen and not merchants or sailors involved in long distance trade.

> *Men who are employed in a variety of ways on the rivers and creeks of China, make them their homes. Like the class of vessels which I have just been describing, these boats are never removed from their anchorages. They are the floating homes of sailors engaged in navigating ocean-going junks, river-trading junks, lighters, and fishing boats, who, although they may be absent on voyages extended over several months, look on their return to find these vessels, in which, in all probability, they were born and brought up, safely moored at their familiar stations.*

> *These floating homes are generally arranged so as to form streets of boats; but at Canton this arrangement is not so perfect as it was ten or twelve years ago.*[33]

The sources may be insufficient as yet to suggest anything like the kind of class consciousness for which Rediker finds such natural evidence in Western merchant fleets. Chinese sailors were not known to have organized large scale maritime strikes until the early twentieth century in Hong Kong. Any kind of class feeling, originating perhaps from the international experience abroad or contact with other sailors from a diversity of cultures, remains conjecture.

Just as there exists in outline form a background for the crews of the junk trade, the passengers on board the ships also have a particular background, an identity distinct from being simply Chinese. Who were the paying voyagers engaged in traditional commerce to Southeast Asia? Where did they go? How many of them went abroad? How much did it cost? How did the voyage change their sense of identity?

The same kind of regionalism pertained to trade also had a large effect on the selection of the passengers for the journey to Southeast Asia. Migration was geographically patterned rather than randomly distributed. Depending on the port of departure, passengers represented groups of either Cantonese from the Guangzhou area, Hainanese from Hainan, or Teochiu or Hokkien speakers from Fujian and Guangdong. Hokkiens from the Amoy region early on far outnumbered all others, while later in the nineteenth century there was a great increase in Teochiu migration from the Swatow area, along with increases in Hainanese and Hakka travelers.[34] Given that families and villages from these areas were often involved in violent feuding with other families and villages, tensions may have been high during the voyage. More likely, passengers on separate ships may have represented exclusive segments of certain very local regions. Chinese passengers headed overseas engaged in various fields such as mining, farming, unskilled labor, and domestic services, although in several places they tended to gravitate towards commerce and city life, given the opportunity.

With the increasing number of travelers going overseas, emigration companies were formed at the departure ports. Migration agents often chartered ships for this transportation. Headmen aided in the collection and processing of migrants, charged them for the coming journey, and ferried them out to the ships, all of which was illegal activity for most of the Qing dynasty period. A typical voyage in the early nineteenth century from Amoy to Bangkok cost the laborer eight Spanish dollars,[35] but this pertains to laborers who were traveling to Southeast Asia *en masse*. The groups of wealthier merchants who traveled overseas experienced different conditions.

The difference between contract laborers, increasingly shipped abroad in the mid and late nineteenth century, and the sojourning merchant travelers during an earlier period is important but only vaguely understood. Leonard Blusse separates Chinese passengers into two groups: merchants and their assistants who paid for cabin accommodations on board, and more common passengers who sought transportation in any available spot, presumably stashing themselves away in the hold of the ship with the crew. Chinese ships were generally employed in shipping passengers to what was then Cochin China (Vietnam), Siam (Thailand), the Straits Settlements (Malaysia), the Philippine Islands, and the Dutch East Indies (Indonesia). As certain destinations, such as Siam, had no official contract labor agreement with China, technically speaking there could have been no great numbers of contract labor passengers shipped there.

From the point of view of social conditions on board the ships, what is the difference between smaller groups of laborers going overseas on their own volition and larger groups of contract laborers being sent overseas by companies? In other words, where is the line between traditional sojourners and increasing numbers of commercial laborers? The phenomena of merchant sojourning and contract labor overlapped. It might be safe to assume that, for earlier voyages to Southeast Asia, traveling merchants moved in the relative comfort of the cabins provided on cargo vessels. Later, with the growing demand for labor, passengers became the most important type of cargo going south, and ships began to specialize in carrying large numbers of laborers in any available space. Both experiences are relevant to Chinese voyaging in the early decades of the nineteenth century.

The crew, except for the second class seamen, bunked in cabins at the stern of the vessel. These cabins were rented by their occupants to voyaging merchants, neither the captain nor anyone else having the right to expel a sailor from his cabin for the purpose of carrying more passengers.[36] The price was considerably higher than that paid by more common laborers. In 1830, the fare from Canton to Singapore for one of these cabins was 150 Spanish dollars.[37] Most observers were not well disposed to the experience:

> *When we got on board we went below to see the berths in the cabin which were set apart for our accommodation, but they appeared so filthy and stunk so horridly that we were glad to get on deck again. The cabin was also full of smoke, and everything we came in contact with left its mark on our hands or our clothes. It was now determined to have our beds spread down on the deck of the vessel, where, as it was partly covered, we could sleep with more comfort than in the filthy cabin.*[38]

Depending on the size of the ship, the number of merchants involved with a single voyage could be quite high. The exact distinctions between those who owned a share in a vessel, those who just shipped goods abroad, or those who purchased passage overseas along with cargo space remain unclear.

> *Some of these ships are not less than a thousand tons burden, and contain half that number of souls, besides the passengers that leave their country, in the hope of making their fortune in Batavia or Manila. A ship is seldom the concern of one man. Sometimes forty or fifty, or even a hundred different merchants purchase a vessel, and divide her into as many different compartments as there are partners, so that each knows his own particular place in the ship, which he is at liberty to fit up and secure as he pleases. He ships his goods, and accompanies them in person, or sends his son, or a near relation, for it rarely happens that they will trust each other with property, where no family connection exists.*[39]

Although Europeans were generally disappointed in the style of cabins and crowded conditions on Chinese ships, there were worse accommodations than these. Concerning the growing numbers of workers going overseas in the nineteenth century, the conditions seem to have become more similar to those of other large scale transportation methods of contract labor as time passed.

> *The condition of the emigrants in general, on their arrival in a foreign country, is most miserable, without clothing, or money for one day's subsistence.... The junks which transport them in great numbers, remind one of an African slaver. The deck is filled with them, and there the poor wretches are exposed to the inclemency of the weather, and without any shelter, for the cargo fills the junk below. Their food consists of dry rice and an allowance of water; but when the passages are very long, there is often a want of both, and many of them actually starve to death.*[40]

In Manila, relatively small (150- to 200-ton) vessels arrived with anywhere between two to four hundred passengers.[41] John Crawfurd records an immense ship bringing 1,200 passengers to Bangkok, placing annual migrations to

Siam from China in the 1830s at about 7,000 persons. As the need for mass labor transportation grew, shipboard conditions became more and more crowded. Although the Western inhabitants of Southeast Asian destinations welcomed the shipments of goods such as silks, porcelains, and tea, the growing numbers of migrating Chinese caused increasing alarm. Spanish and Dutch colonists increasingly interfered in the regulations of the junk trade, attempting to restrict numbers of migrants or concentrate trade at certain ports. The increasingly poor conditions for passengers define a transition zone from the voluntary or steady state migration of the previous period and the transportation of contract laborers of the mid to late nineteenth century.

Chinese passengers in the junk trade occupied themselves with traditional methods of passing away the long hours and days. Gambling is a recurring theme in references of passengers on board either native or European vessels. Concerning one traveler in particular:

> *The emigrants from China are chiefly mechanics, agriculturists, and labourers, but many are also engaged in commerce. The most wealthy of the latter is Che Sang, a miserly old man, who appears to great disadvantage when compared with the liberal and well informed Chong Long. His sole aim has been the acquirement of riches, and he is supposed to possess immense wealth. His cash is deposited in a number of iron chests, among which he always sleeps. It is said that a considerable portion of this treasure has been acquired by gambling, to which he is much addicted. On one occasion fortune deserted him, and he lost a considerable sum, which so terribly disconcerted the old man, that he took a most solemn oath never to touch dice again, and, to punish himself for his indiscretion, and as a memento of his oath, he cut off the first joint of one of his little fingers. The ruling passion, however, proved too strong, and he soon embarked in gambling as deeply as ever.*[42]

Once the crew and passengers were on board and the gongs and festivities of the departure ceremonies were concluded, nothing lay ahead but the long days of the voyage itself. Today, long sailing voyages are often styled as days of unending monotony, punctuated by brief moments of sheer terror. The same must have been true for Chinese sailors. A lucky voyage meant nothing unusual, such as storms, occurred. If dangerous conditions were encountered, all would have to strive to save the vessel from capsizing or going onto the rocks. Monotony must have been the welcome choice of many a sailor, Chinese or otherwise. Unending days of steady favorable breezes would speed the ship on its way, making as short a passage as possible over the potentially hazardous waters. Typical distances and sailing times from Amoy during the nineteenth century reflect the stately pace of these heavy wooden vessels:

Typical Sailing Times and Distances from Amoy[43]

Destination	**Miles**	**Time (Days)**
Batavia	2,400	28
Luzon	740	7
Taiwan	200	2
Bangkok	2,000	19
Malacca	2,200	26
Johore	1,900	17
Liu Ch'iu	600	7
Palembang	2,200	22

During this time, the normal working of the ship played a dominant role in setting the conditions of the voyage. The crew took turns manning the helm and attending to the sails and ship. Watches were set with regularity, and the vessel continued on its way, stopping only for additional water or firewood, or the observance of proper religious practices. The physical necessities and surroundings were quite restrictive. Berths were small and water limited. Although this does not seem much different from European sailing voyages, the junk trade differed in placing religious factors higher on the priority list during particularly dangerous passages.

The basic unit of Chinese navigation was the watch, or *geng*. This can be roughly translated as one-tenth of a day, or 2.4 hours, the distance the ship will move in one-tenth of a day. From an examination of several different sources, Richard Aston concludes that the average speed of large Qing Dynasty merchant ships was about five miles per hour.[44] As any modern sailor knows, this seems a respectable (if leisurely) pace for sailing vessels, taking into consideration storms, currents, and periods of calm or adverse winds. The routes traveled all lay close to land, so the main method of navigation was by the observation of recorded landmarks. Pilot books, or rutters, had been kept of these landmarks and sea routes since the Song period and through the early Ming Dynasty.

> *The navigation of junks is performed without the aid of charts, or any other help, except the compass; it is mere coasting, and the whole art of the pilot consists in directing the course according to the promontories in sight. In time of danger, the men immediately lose all their courage; and their indecision frequently proves the destruction of their vessel. Although they consider our mode of sailing as somewhat better than their own, still they cannot but allow the palm of superiority to the ancient craft of the "Celestial Empire." When any alteration for improvement is proposed, they will readily answer — If we adopt this measure we shall justly fall under the suspicion of barbarism.*[45]

Although Chinese navigation was not something to be envied by Western standards, it was well suited for the conditions and proved accurate enough. Chinese rutters were products of centuries of experience. Even the usually pessimistic Karl Gutzlaff was impressed by their methods, feeling that the Chinese were seldom wrong in their estimations. Calamities did occasionally occur, and it was at these moments of sheer terror that the relative lack of command hierarchy among the crew must have become most painfully obvious.

Typhoons are among the most noted hazards of traveling through the South China Sea. Although these storms are possible any time during the year during either monsoon, they are more likely to occur with greatest violence between June and October, and less likely to occur between December and May. In an age when there was no meteorological forewarning provided by weather satellites, experience in observing the changes in cloud cover or wind direction was a necessity, as was a good working knowledge of the locations of various sheltered typhoon harbors along the coast. Modern day vessels still get caught unprepared by violent typhoons in the western Pacific, despite constant weather surveillance.

One of the most striking differences between European and Chinese merchant crews was the lack of absolute authority on the part of the Chinese captain. According to the sources, not only could the crew question his decisions in times of imminent danger, but the passengers as well often got into the decision making role, something completely unheard of in the European maritime world.

> *Indeed, should many lives be lost by the capsizing of a passenger boat, the ruler of the district in which the accident occurs may be seriously involved, inasmuch as the principal magistrates of the respective ports have the power to prevent vessels proceeding on their voyages when the general appearance of the heavens indicates an approaching typhoon or very strong winds. Should a very heavy squall be at hand whilst a vessel is on her voyage, the passengers can call upon the master to strike sail and cast anchor until the*

> *danger is past. Should the master of the vessel, however, continue the voyage despite these expostulations, he incurs a punishment of forty blows.*[46]

The absolute command of the captain in the maritime west is almost sacred. It is taken for granted that the captain has the final responsibility for all decisions that affect the safety of the ship, crew, and passengers. Apparently, there was no counterpart to this type of "dictatorship" in the commercial (not military or pirate) Chinese junk trade.

Cabin accommodations during the voyage were basically holes into which one slid his possessions and body, with scarcely enough room in which to sit upright. The relative position of the cabins at the stern of the ship to other cargo on deck is somewhat confusing. Located on both sides near the stern, they were separate from the structure which housed the shrine to Tianfei.

> *The junks which navigate this dangerous bay... are frequently in a most filthy condition. Dr. Medhurst, of the London Missionary Society at Shanghai, gives the following graphic description of what he experienced when crossing in a pig-laden junk: "It was night before we arrived on board the junk, which immediately got under weigh. It was only then that we became alive to our uncomfortable position. The grunting and stink of the pigs, together with the smoking and jabbering of the men, affected a variety of the senses in a most disagreeable manner. We found the berths that had been assigned us already occupied by about a dozen individuals, but upon remonstrance made we got one of the berths cleared for our reception, in which we had to make our beds, immediately under the pigs, and in close contiguity to a dozen Chinamen, who lay about on the floor one over the other, almost as filthy and unceremonious as the pigs themselves. The stench and heat was almost unsupportable, and the horrid groaning and struggling of the porcine multitude over head, rendered sleep almost impossible."*[47]

Although the crew had scant fare, it is unclear whether passengers had to furnish their own provisions during the journey. Water was kept stored on deck, as on European ships, making access easier. The locations of springs and potable water along the coasts leading to Southeast Asian destinations probably formed an important part of the pilot's experience.

Unlike Western practice, the bow or head of the ship was never used by the Chinese as the crew's toilet. On Western ships, the officers relieved themselves from the stern quarter galleries, which were housed in projections over the aft quarter of the vessel, while the common sailors used seats near the bowsprit, or head of the ship (which is why toilets on Western ships are referred to as heads). Toilets on Chinese ships were placed aft, and were used by sailors and owners or masters alike, who regarded the bows as a sacred part of the ship and took care not to let any filth desecrate the cutwater.

References to religious observations during voyages occur frequently in the nineteenth century sources. One feature of coasting style navigation was the ability to make stops at important temples and attend to the appropriate local, Daoist, and/or Buddhist ritual. Chinese maritime religious practice falls into the category of popular religions, an eclectic mixture of local beliefs, along with elements of these more institutionalized systems including Confucianism. Not only Tianfei, but Guanyin, the Buddhist deity of mercy, figured heavily in maritime lore, as did dragon gods of the rivers and seas. Other figures which may have been present in some form on board the ship were Liu Bang, the carpenter god, and Kuan Yu, the god of war (as well as financial success). When not physically stopping at known temples along the coast, crews and passengers could and did observe them in passing.

> *The care of the goddess is intrusted to the Priests who never dares to appear before her with his face unwashed. Every morning he puts sticks of burning incense into the censer, and repeats his ceremonies in every part of the ship, not excepting even the cook's room. When the junk reaches any promontory, or when contrary winds prevail, the priest makes an offering to the spirits of the mountains, or of the air. On such occasions, (and only on such,) pigs and fowls are killed. When the offering is duly arranged, the priest adds to it some spirits and fruits, burns gilt paper, makes several prostrations, and then cries out to the sailors, "Follow the spirits!" who suddenly rise and devour most of the sacrifice. When sailing out of a river, offerings of paper are constantly thrown out near the rudder. But to no part of the junk are so many offerings made as to the compass. Some red cloth, which is also tied to the rudder and cable, is put over it; incense sticks in great quantities are kindled; and gilt paper, made into the shape of a junk, is burnt before it. Near the compass, some tobacco, a pipe, and a burning lamp are placed, the joint property of all; and hither they all crowd to enjoy themselves. When there is a calm, the sailors generally contribute a certain quantity of gilt paper, which, pasted into the form of a junk, is set adrift. If no wind follows, the goddess is thought to be out of humour, and recourse is had to the demons of the air. When all endeavors prove unsuccessful, the offerings cease, and the sailors wait with indifference.*
>
> *Such are the idolatrous Principles of the Chinese, that they never spread a sail without having conciliated the favour of the demons, nor return from a voyage without showing their gratitude to their titular deity.*[48]

Special attention was paid to the shrine on board the ship, where images of Tianfei and others were housed. Incense was often kept burning near the altar, where it served a double purpose. Besides carrying messages aloft, incense (or fire) clocks kept track of the watches, evenly measuring the passage of time.[49] Incense was also burned at auspicious changes in the weather as well.

All this attention to the spirits was vitally important, for the gods could not only grant financial success to the voyage, but also ensure a safe passage. The Chinese, like sailors all around the world, held a special aversion to death by drowning. For a mariner to lose his life at sea meant that there would be no body to bury, hence no grave to be cleaned, so no ancestor to be revered. In Chinese tradition, dead ancestors who did not receive proper sacrifices of wine and food became "hungry ghosts." Those who drowned at sea became "water ghosts," doomed to seek out living victims to take their places.[50] This was such a strong belief that several observers recorded sailors actually refusing to give aid to victims struggling in the water, or to vessels which had capsized and were in the process of sinking.

The same kind of superstitious dread of death and ill omens surrounded the vessel itself. Like European vessels, Chinese ships were regarded as living beings, capable of possessing good or bad luck and in need of protection from certain omens.

> *In going up one of the rivers at this time I observed the effect of a curious superstition which both amused and surprised me at the time. Every one knows that nearly all the junks and boats of China have eyes carved or painted in the bows. I had observed them on all parts of the coast, and had often heard the reason said to be given by the Cantonese, namely, " Suppose no got eye, how can see?" But I did not imagine that any one was so superstitious or ignorant as to fancy that these junks or boats really could see with the*

> *eyes which had been given to them. It seemed, however, that I was mistaken. As I was sailing slowly onwards one of my boatmen seized his broad hat, and, rushing past me to the bows of the boat, placed it over one of the eyes. Several other boats in company were also blinded in the same way; some with hats, others with coats, cloaks, or anything that came readiest to hand. I did not understand this proceeding at first, but soon found out the cause. A dead body was floating up the stream with the tide, and if the boat is allowed to see an object of this kind some evil is sure to happen to the passengers or crew before the voyage is over. Such is one of the superstitions of the Chinese, and hence the reason for covering up the eyes of the boats in order that they might not see.*[51]

Other reports record this same attitude towards ships. One, after having capsized, was salvaged, repaired, and put back on the market. Although practically brand new, no buyer could be found. The same sorts of incidents have been recorded for Western ships and crews.

It has generally been acknowledged that sailors of all types are a very superstitious lot, and certainly the Chinese bear out this observation. Mariners the world over had good reason to be superstitious and err on the side of caution, on ensuring their safety by adopting more rather than fewer ritual practices. James Fenimore Cooper stated that "superstition is a quality that seems indigenous to the ocean."[52] Contemporary observations provide more detailed descriptions of ritualistic behavior. When eating broiled fish, Chinese sailors were careful not to break off any of the bones, nor turn the fish over — both were actions which symbolized damage to the boat, as in wrecking or capsizing. When they drank, they did not toast "bottoms up" for the same reason. Laundry was never hung high on the mast, in order not to impede the wind spirits.[53] Sailors' jobs were often hazardous and their safety frequently depended on the seen and unseen forces of nature.

Upon arrival at the destination, festivities were again held in Tianfei's honor, and processions moved from ship to temple with a good deal of music and commotion. A successful passage was as surely a cause for celebration then as it is now. In Batavia, arrivals were greeted not only by banquets and fireworks, but were also treated to *wayang* performances of shadow puppetry as well:

> *One of the interesting sights of the period was the arrival of the great trading junks which sailed hither with the fair monsoon. They came into the harbour with a veritable Babel of sounds from tomtoms and horns, their crews massed on high prow and stern, for the purpose of announcing their safe arrival, in all this there was something akin to music; there can be none in the screeching siren, and smoke of coastal and ocean-going steamers, which now daily come and go, and keep the harbour alive with shipping."*[54]

The migrants themselves may have been as much a cause for rejoicing as the arrival of trade goods. Local families of overseas communities were not only interested in the supplies from their distant homeland, but also considered carefully the numbers of migrants as potential sons and daughters-in-law. Chinese bachelors in Southeast Asia were allowed to intermarry with the local population, an important factor affecting the rate of cultural assimilation. With the increasing arrival of eligible females from China, the nature of the family in Southeast Asia began to change, the assimilation rate slowing. For the women, who were not allowed to marry outside the group, the arrival of ships in the junk trade meant the potential for a new group of eligible bachelors. Both sexes may have been keenly interested in the festivities.

Just as migrants mainly represented exclusive cultural groups from individual areas of the Chinese coast, their destinations reflected their places of origination. There were distinctive populations of Hokkiens, Teochius, Cantonese, Hainanese, and Hakka throughout Southeast Asia, rather than a more general mixed population of Chinese. For instance, within Siam the Chinese immigrants (95% of whom were from Guangdong and Fujian provinces) were still strongly subdivided by speech group, perhaps as much as they had been in their homeland.[55]

> *...[E]very Chinese finds it necessary on his arrival to become a member of one of the secret societies, all of which have the object in China of overthrowing the present dynasty, while they are at Singapore rendered subservient to the national propensity for plunder, as one member will always screen another from detection. The different sects, however, hate each other cordially; therefore the peaceable inhabitants do not suffer so much from their aggressions as if they formed a united body.*[56]

Observers noted that contract laborers were often met by relatives or associates of the immigrant's home region upon debarkation in foreign ports. Such associations helped the newly arrived bachelors adjust to the new settings and find employment. Travelers on board the Chinese ships also were met by familiar faces upon their arrival overseas.

Upon arrival at such major entrepots as Bangkok, a port which Crawfurd refers to as second only to Canton, voyaging merchants would set up shop, either on the shore or on the ship itself. Year round in Bangkok, four miles of floating shops, anchored to posts and rising and falling with the tide, stretched along the Chao Phraya river, selling Chinese and local wares. Numerous houseboats, canoes, and sampans plied the river and tributaries. In the 1830s, approximately seventy Chinese vessels arriving each year were added to this scene, moored in two lines facing downstream before the city.[57] Temporary structures could be erected on the deck of the vessel, and the ship quickly turned into a floating shop. These trade fairs may have lasted for several months, due to the necessity of waiting for the proper monsoon for the return voyage. Aston provides a description of trade from 1837:

> *The commercial activity of the Chinese is seen to the greatest advantage during the annual visit of the junks from the Celestial Empire; these remain in the harbour from December until June, and throughout the whole period, boats filled with Chinese are continually passing and repassing among the shipping, giving to the roads the appearance of a floating fair.*
>
> *The first junk, which arrives generally a little before Christmas, is most anxiously looked for.... The first boat reaches the junk when she is still several miles distant, and as she nears the town, she gains an accession of bulk at every fathom, until at last the unwieldy mass slowly trails into the roads, surrounded by a dense mass of boats having the appearance of a locust which has inadvertently crossed an ant's nest, and is dragging after its countless myriads of enraged inhabitants attached to its legs and feelers. As the decks of the junk are always crowded with emigrants, the greater proportion of the visitors are obliged to remain in the boats, and these endeavor to gain as much information as they can by shouting out questions to the people on board. The Chinese sailing master, who struts about on the top of the thatched habitation on the quarter deck, with all the importance of a mandarin with a peacock's feather, endeavors in vain to make himself heard above the noise, so that the junk is generally brought up in the outer roads until sufficiently cleared of its visitors to render it safe for it to enter the inner anchorage.*
>
> *Other junks soon arrive, and although these do not excite quite so much interest as the first, the same scene is acted over in each. For a day or two after the arrival there is little business transacted, as the crews are*

> *all engaged in building roofs over the vessels to shelter the wares which are to be exposed for sale on the decks. When these arrangements are completed, the fair commences, and the junks are surrounded from morning until night by the boats of the Chinese traders from the shore.*[58]

A more festive atmosphere would be hard to imagine. From the point of view of the merchant/sailor, displaying his own goods on deck for sale in a distant market, the setting seems ideal. Skinner refers to the floating bazaar at Bangkok as an "Eastern Venice." The Chinese ships had been arriving in the northern Gulf of Thailand for centuries, yet by the 1880s the floating marketplace was history. Steam navigation would capture the bulk of trade.

Once the duties of the voyage were over, crew members were free to enjoy themselves in a manner familiar to mariners of other nations. Such a relaxation of morals, of course, incurred the wrath of certain missionary observers. Upon completion of one of his three voyages in China, Gutzlaff was unable to restrain his sailing companions to control their more base desires:

> *As soon as we had anchored, numerous boats surrounded us, with females on board, some of them brought by their parents, husbands, or brothers. I addressed the sailors who remained in the junk, and hoped that I had prevailed on them, in some degree, to curb their evil passions; but, alas ! no sooner had I left the deck, than they threw off all restraint; and the disgusting scene which ensued, might well have entitled our vessel to the name of Sodom. The sailors, unmindful of their starving families at home, and distracted, blinded, stupefied by sensuality, seemed willing to give up aught and every thing they possessed, rather than abstain from that crime which entails misery, disease, and death. Having exhausted all their previous earnings, they became a prey to reckless remorse and gloomy despair.... Observing my trunks well secured, it was surmised by the sailors that they contained silver and gold; and a conspiracy was formed to cleave my head with a hatchet and to seize the trunks, and divide the money among themselves.*[59]

This seems a far cry from the more serious nature of trade operations in major entrepots like Bangkok, but perhaps the two types of behavior were not completely contradictory. Once trading operations were complete, passengers delivered, and homeward bound voyagers picked up, the ship had only to return to China by the specified date in order to complete its circuit.

Overseas Chinese migration can be divided roughly into three basic periods: 1550–1850, 1850–1900, and 1900–1950. The second period features newer forms of transportation and changes in destinations and style of migration. The third period is notable for restrictions enacted against Chinese migration by Western countries. I have examined the conditions of traveling overseas at the end of the first major period of migration, a time when most migrants went by traditional wooden ships. My intention here has been to examine one specific period within Chinese migration, but the traditions and behaviors are much wider in scope than these few decades. Nonetheless, from a scattering of primary source material, an impression of seagoing life in the junk trade begins to take shape.

The period from the mid-eighteenth to the mid-nineteenth centuries represents the boom years for Chinese shipping to Southeast Asia. Crews and sojourning merchants had long been familiar with the journey. Do the descriptions of these voyages offer the suggestion of a separate type of maritime identity, either for the crew or the passengers or both? Does the Chinese ship represent a "total institution?"

Sailors formed a kind of separate community which was very regionally oriented, either ashore or at sea. Their skills, working conditions, religious observations, dress, and sometimes behavior set them apart as a group from landsmen. The answer, then, to the question of identity posed by Marcus Rediker and Paul Gilroy, is "yes," but a conditional "yes." There does seem to have been a definite maritime identity for the crews of Chinese vessels. The ship itself, as transportation and/or permanent home, could form the entire world for mariners. This identity was not formed as a nautical construction, as was so often the case with Europeans and the kind of naval hierarchy involved in creating the disciplined crew. Close bonds of surname, lineage, and village loyalty translated into the social structure on board vessels from particular regions of the coast. A maritime community more akin to family and family ties provided identity for Chinese seamen. This family orientation, plus the observations of the merchant crew's decision making authority, and the fact that crews doubled as traveling merchants due to their individual cargo allowance, suggests a relatively cohesive group as a whole. This stands in contrast to the social distance between Western officers and their crews, and their opposite economic positions in a merchant/capitalist world. Chinese maritime identity, then, did not emphasize class consciousness or laborers versus captain/ owners, but perhaps reflected more regional and familial association. Yes, there was a maritime identity, but it was unlike the Western experience.

An increasing number of migrants from Fujian and Guangdong Provinces were headed across the South China Sea at this time. This was due to a variety of factors, such as population pressure, bandit uprisings, and the creation of more moneymaking opportunities abroad. Lack of records for this illegal activity seriously hampers most attempts to understand how many passengers traveled to certain destinations, or how many normally went on a single ship. Information from other examples of labor transportation regarding space allotted to passengers or the number of deaths per voyage cannot yet be assembled. Besides the assumption that passengers took part in the several important seagoing ceremonies which accompanied every voyage, it is difficult to say that their experience on board brought them together in any significant way. They were already members of clearly identifiable groups. Their bonds at home and associations overseas were already in place, and may not have been substantially changed by experiences during the voyage. They left homogeneous areas and arrived at distinct and familiar Chinese communities overseas. In the Atlantic, on the other hand, captives on a single vessel enduring the Middle Passage represented a variety of cultures and languages from within Africa. They faced transportation to a totally alien environment. Their confinement may have had greater potential in forging a common identity. Gilroy's bonding experience of the Middle Passage may not have occurred in the South China Sea. The Black diaspora has little in common with the Chinese trade diaspora. The situation for voluntary Chinese voyagers in the decades and (by inference) centuries previous to the mid-nineteenth century seems quite different from later experiences of contract or slave labor.

Separate events making up the departure, passage, and arrival shaped the experience of the Chinese voyages south. Besides the random observations of ships and sailors, decrees and official regulations outline attempts to regulate maritime activity. It should be noted that even at times of severe trade prohibitions, such as the period of the Ming Ban in the early fifteenth century or the reign of the maritime rebel Zheng Chenggong in the seventeenth century, the central authorities could never completely enforce any rules along China's long southern coast regarding private activity. Most of the junk trade was in private hands. The true dimensions of this sea-going business may never be known in any detail.

This description of life on board a Chinese ship in the early nineteenth century features a kind of running comparison to the European maritime world. One product of this method is an understanding of Chinese maritime behavior as similar or dissimilar to other, more familiar traditions. The most striking similarities center around maritime superstitions, many of which appear as universal archetypes. Fear of those who drowned at sea, coins built into the vessel, and reverence for the ship as a living entity seem to be common to the profession. A comparison of how supernatural oceanic forces are derived would prove most illuminating towards understanding each culture's maritime world view.

Given the limited number of maritime history sources currently available, this description of nineteenth century conditions at sea can only be considered as preliminary, until more research can be carried out, perhaps in the collections of documents in Taiwan or Beijing. Chinese language sources are the next step. There is no doubt, however, that in contrast to the dated Eurocentric view of China as not really having a strong connection with seafaring or the sea, the more that is uncovered about Chinese maritime history in general and the junk trade in particular, the more fascinating the story will become. A growing body of work now suggests that both merchants and Imperial Qing officials placed more importance on maritime activity than was previously believed even by recent scholars. China has a rich history of involvement with the sea. Maritime Asia will continue to hold great potential for further research.

NOTES

1. Stanley F. Wright, *Hart and the Chinese Customs* (Belfast: Queen's University, 1950), 400. Hart was reluctant to impose too many regulations on native craft, for the sake of engendering good relations with local merchants.
2. Marcus Rediker, *Between the Devil and the Deep Blue Sea* (Cambridge: Cambridge University Press, 1987), 290.
3. Paul Gilroy, *The Black Atlantic* (Cambridge: Harvard University Press, 1993), 4.
4. Vilhelm Aubert and Oddvar Arner, "On the Social Structure of the Ship," *Acta Sociologica* 3, no.4 (1965): 200.
5. Robert Fortune, *A Residence among the Chinese: Inland, on the Coast, and at Sea* (London: John Murray Publishers, 1857), 225.
6. Ta Chen, *Chinese Migrations, with Special Reference to Labor Conditions* (Washington: Government Printing Office, 1923), 13; John Crawfurd, *Journal of an Embassy from the Governor General of India to the Courts of Siam and Cochin China* (London: Henry Colburn, 1828), 49. "Junk" was originally a Southeast Asian word; *chuan* is one of the Chinese designations for ship.
7. Leonard Blusse, *Strange Company: Chinese Settlers, Mestizo Women, and the Dutch in VOC Batavia* (Dordrecht: Foris Publications, 1986), 106.
8. John Henry Gray, *China: a History of the Laws, Manners, and Customs of the People* (London: Macmillian and Company, 1878), 264.
9. Blusse, *Strange Company*, 111. Contraband usually fell into several common categories: salt, ammunition, weapons, and opium, with opium well ahead of the others.
10. Gray, *China*, 257.
11. *Ibid*, 260–261.
12. James L. Watson, "Standardizing the Gods: The Promotion of T'ien Hou ("Empress of Heaven") Along the South China Coast, 960–1960," D. Johnson, *et al.* (eds), *Popular Culture in Late Imperial China* (Los Angeles, 1985). Admiral Zheng He dedicated his western voyages to Tianfei.
13. Karl Friedrick Gutzlaff, *Journal of Three Voyages along the Coast of China in 1831, 1832, and 1833.* (London: Frederick Wesley and A.H. Davis, 1834), 97.
14. Gang Deng, "What did Seas and Oceans Mean to the Chinese in the Past Millennia?" (paper presentation second annual conference of the World History Association, Honolulu, June 1993), 13.
15. Harry J. Lamley, "Lineage Feuding in Southern Fujian and Eastern Guangdong Under Qing Rule," in *Violence in China: Essays in Culture and Counterculture,* Jonathan N. Lipman and Harrell, eds. (SUNY Press: New York, 1990), 27–64.
16. Gutzlaff, *Three Voyages*, 138.
17. Jennifer Cushman, *Fields from the Sea: Chinese Junk Trade with Siam during the Late Eighteenth and early Nineteenth Centuries* (New York: SEAP, 1993), 99–100.
18. *Ibid*, 101.
19. Gutzlaff, *Three Voyages*, 96.
20. *Ibid*, 95.
21. Crawfurd, *Embassy*, 411.
22. Richard James Aston, "The Merchant Shipping Activity of South China, 1644–1860," (master's thesis, University of Hawai'i, 1967), 44.
23. Cushman, *Fields*, 106.

24. Gutzlaff, *Three Voyages*, 96.
25. *Ibid.*
26. *Ibid*, 105.
27. John Scarth, *Twelve Years in China; the People, the Rebels, and the Mandarins* (Edinburgh: T. Constable, 1860), 127–128.
28. W. H. Medhurst, *China: its State and Prospects* (London: John Snow, 1857), 458.
29. Scarth, *Twelve Years*, 119.
30. Gutzlaff, *Three Voyages*, 99.
31. Joseph Needham, *A History of Science and Civilization in China*, Volume IV, Part 3 (London: Cambridge University Press, 1971), 403.
32. Gutzlaff, *Three Voyages*, 107.
33. Gray, *China*, 274.
34. William G. Skinner, *Chinese Society in Thailand* (Ithaca: Cornell University Press, 1957), 40–41. Many established sojourners had resided overseas long enough that they saw themselves as distinct from the more recent influx of other Chinese.
35. Crawfurd, *Embassy*, 412.
36. Gutzlaff, *Three Voyages*, 96; Aston, "Merchant Shipping," 45.
37. Aston, "Merchant Shipping," 45.
38. Fortune, *A Residence*, 313.
39. Sir John Barrow, *Travels in China...* (London: T. Cadell and W. Davies, 1806), 41–42.
40. Gutzlaff, *Three Voyages*, 168.
41. William L. Schurz, *The Manila Galleon* (New York: E. P. Dutton, 1939), 70.
42. George Winston Earl, *The Eastern Seas, or Voyages and Adventures in the Indian Archipelago in 1832 — 33 — 34* (London: 1837; reprint London: Oxford University Press, 1971), 365.
43. Adopted from Aston, "Merchant Shipping," 54. The required number of days does not correspond only to the number of miles, due to other factors affecting speed, such as wind direction, currents, etc.
44. *Ibid*, 51.
45. Gutzlaff, *Three Voyages*, 96.
46. Gray, *China*, 270.
47. Fortune, *A Residence*, 311–312.
48. Gutzlaff, *Three Voyages*, 97–98. This practice of votive boat replicas appears in several other contexts within maritime Asia and Southeast Asia.
49. Barrow, *Travels*, 42. Sand hourglasses also kept time on longer voyages.
50. Eugene N. Anderson, "The Happy Heavenly Bureaucracy: Supernaturals and the Hong Kong Boat People," *Asian Folklore and Social Life Monographs* (Taipei: Orient Cultural Service, 1972), 15. For this reason, Chinese mariners never buried their dead at sea, a ritual European mariners practiced without hesitation.
51. Fortune, *A Residence*, 405–406. Furthermore, while characters for profit and luck may have been carved onto the stern, the vessel was more likely to simply have a number, no individual name.
52. Cooper quoted in Horace Beck, *Folklore and the Sea* (Middletown: Wesleyan University Press, 1973), 279.
53. Hiroaki Kani, *A General Survey of the Boat People of Hong Kong* (Hong Kong: Dai Nippon, 1967), 73.
54. Blusse, *Strange Company*, 113–114.
55. Skinner, *Chinese Society*, 35.
56. Earl, *Eastern Sea*, 369–70.
57. The whole description of river trade in Bangkok comes from Skinner, *Chinese Society*, 106.
58. Earl, *Eastern Sea*, 365–367. Earl refers to arrival of ships in Singapore.
59. Gutzlaff, *Three Voyages*, 116–117.

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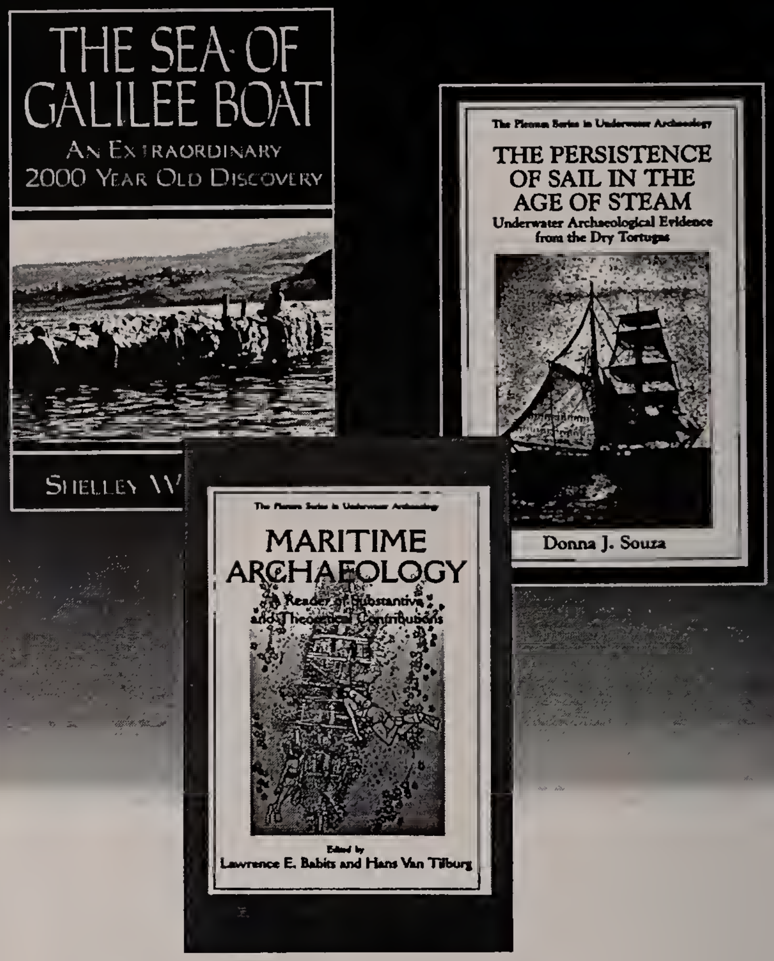
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ORD'S ARKS:

ANGLES, ARTILLERY, AND AMBUSH ON LAKES GEORGE AND CHAMPLAIN

GARY PAINE

> *...[Ord] is a Gentleman that seems to understand his business well...*
> Lieutenant Governor of New York
> James DeLancey, 5 June 1755.[1]

> *This is Ord's favourite Scheme...*
> British General Jeffrey Amherst,
> 17 August 1759.[2]

On the Sunday evening of 1 October 1758, Captain Thomas Ord of the Royal Regiment of Artillery dined with Captain Samuel Cobb, a shipwright, at the southern end of Lake George, New York. Fourteen days had passed since Cobb, under Ord's supervision, began working on a large, unusually shaped ship called a radeau. We can only imagine their conversation while they ate. Perhaps they talked about the radeau's construction details or of the work yet remaining. Despite the radeau's hurried assembly and brief testing, she would remain unfinished when Cobb helped scuttle the vessel near the end of October. When her bulwarks finally disappeared beneath the cold waters, no human eye would again see her for 232 years.[3]

On 26 June 1990, members of the Lake George Bateaux Research Team were searching for colonial bateaux at the lake's southern end. Nearing the end of their day, sound waves from their Klein side-scanning sonar unit detected the presence of a vessel. After sending divers down for confirmation, and following subsequent research, they identified the vessel as the *Land Tortoise*, the larger of two radeau built in late 1758.

The discovery of the *Land Tortoise*, along with the ensuing underwater archaeological fieldwork, has become the focal point for the study of radeaux. Her discovery has revealed many details concerning this type of craft. Yet many questions remain unanswered concerning the recorded sudden appearance, design, function, and seemingly quick disappearance of these warships used within the Lake George-Lake Champlain theater of operations in the French and Indian War.

French for raft, a radeau was a floating battery: a platform to contain artillery, in this case cannon, to be used against an enemy on ship or shore. What made these floating batteries unique was their shape. The seven-sided, flat-bottomed craft featured an outward leaning hull which met an inward leaning bulwark. The result was a series of panels assembled in such a way that an angled plane always greeted the viewer. Moreover, the same slab-sided shape was used from the front, side and top views, except in different proportions. Cannon ports and sweep holes were cut along the gunwale, and the vessels were rigged, often from two masts, when moving across the lake.

Gary Paine has a master's degree in history from Temple University. He was a member of the Land Tortoise *Radeau Survey for the 1992–1994 field seasons.*

I wish to thank Joseph W. Zarzynski, D. K. Abbass, and Russell Bellico for their help and suggestions with early drafts of this article.

The purpose and design of radeaux fulfilled three closely related roles to an army which campaigned across inland lakes. First, they provided a stable and protective means of moving artillery afloat in an operational state. Cannon were mounted on their respective carriages and ready to be used if need be. Second, they offered an immediate response to ambush or enemy opposition to disembarking soldiers from nearby bateaux. Her cannon could cover a landing army from within a relatively protected environment. Third, radeaux carried an impressive battery of large cannon to provide heavy firepower against fortified positions on land or against other ships.

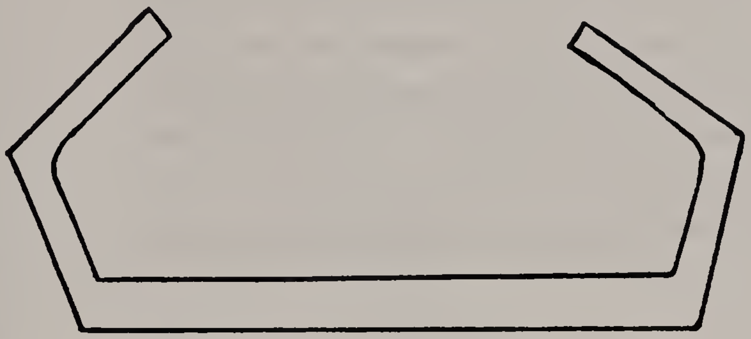
Supervision of radeaux construction by an artillery officer, rather than an officer from the Royal Navy, is significant because of design similarities shared with land-based fortifications. This is confirmed by descriptive eyewitness accounts which use or borrow terms normally associated with land fortifications. Those observations and the abundant use of angles suggest a design that was heavily influenced by known principles of fortification taught to officers in the Royal Regiment of Artillery. The discovery of the *Land Tortoise*, the only known surviving example of the radeau class, and an examination of other radeaux highlight the relationship between a British artillery officer and these vessels.

The history of radeaux starts in the summer of 1755, when two European powers resumed their armed struggle for control over North America in what became known as the French and Indian War. Military operations between British and French forces, and their Indian allies, centered around strategic waterways, which provided transportation routes and were vital for maintaining open lines of communication. To protect and control these routes, forts were built at key points along lakes and rivers. The radeaux constructed and used during the war were contained within this context of a much larger land campaign centered around the taking of these forts.

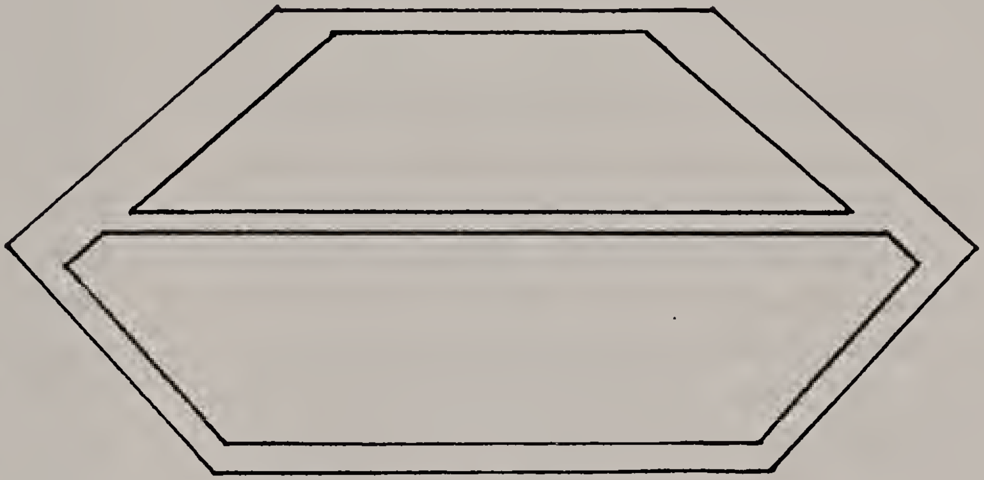
To conquer a fort, siege tactics were employed using an assortment of artillery — cannon, howitzers, and mortars. Without these weapons, success was nearly impossible, since principles of fortification favored the defense. When the destructive effects of artillery were engaged against the heavy walls and entrenched defensive position of an enemy, tactical success was often gained by the attacker. As part of a land campaign, artillery and the necessary carriages, wagons, powder, shot, tools, and men were brought along despite the terrain. Roads were often inefficient or simply widened trails through forested land. Rangers, light infantry, and Indian scouts often were necessary when ambush, skirmish, and irregular tactics were employed.

Introduction to these tactics came immediately and left an impression upon the British throughout the war. General Edward Braddock's expedition against Fort Duquesne in July 1755 collided with a smaller force of French Canadians with hundreds of Indian allies. The ensuing battle and eventual British defeat on 9 July had an immediate effect upon British governors who were planning their own campaigns later that year. Fear of ambush and, more importantly, fear of losing artillery revealed the vital importance artillery played in successfully conducting a siege.

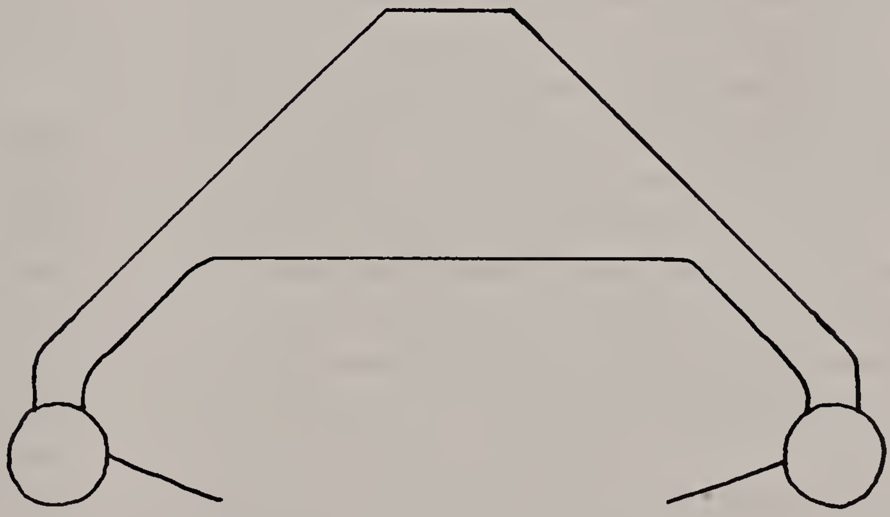
Besides the initial shock upon hearing news of the defeat, Goldsbrow Banyar, Deputy Secretary of New York, wrote to Major-General William Johnson on 12 July of one man's account. He described how enemy forces "...entirely defeated our General and the Division of our Troops which he carried along with him, and what's worst of all our Train of Artillery is left in their Hands which ruins all hopes of doing any thing this way."[4] Seven days later, Banyar again wrote to Johnson: "...but it seems certain enough that the General's part of the Army is defeated, tho I hope the Artillery will prove not to be taken."[5] Late in July, Governor of Virginia Robert Dinwiddie wrote to George Washington, a staff member under Braddock who survived the chaotic battle, commenting, "The train of Artillery being in the Enemy's Possession is a monstrous Misfortune...."[6] The artillery train consisted of twenty-nine pieces, of which twenty-one were either captured or destroyed, and with it any hope of capturing Fort Duquesne.



1758: British Radeau *Land Tortoise*



1863: CSS Ironclad *Albemarle*



c. 1981: USN *Sea Shadow*

Not to scale. Cross section of vessels showing use of angled hull and bulwark. Similarity in shape shows intermittent use of one design feature across a broad spectrum of technological change.

The officer commanding the train of artillery that fateful day was Captain Thomas Ord. His exposure to military defeat with Braddock was not his first, nor his last. Ord was commissioned as a first lieutenant on 1 December 1741, just eight months after the creation of the Royal Military Academy in Woolwich, England. Two years later, he reached captain lieutenant before fighting in the Battle of Fontenoy (11 May 1745), a British loss to the French, serving under William Augustus, the Duke of Cumberland. A year after the battle, he reached the rank of captain, where he then took command of his own artillery company in Woolwich. Ord remained at Woolwich through the end of 1748 before heading to Newfoundland, beginning a long and varied career on the North American continent. He commanded the artillery company there for over six years before being called by Cumberland to lead the artillery train for Braddock. He survived Braddock's defeat and was subsequently ordered to Albany, New York for the remainder of 1755.[7]

Besides fear of ambush, the efficient and safe movement of artillery across inland bodies of water was an additional concern. Use of bateaux, flat-bottomed craft twenty-five to thirty-five feet long, were common when transporting men and material across lakes and rivers. However, moving the artillery train was another concern. Large, bulky, and extremely heavy, the movement of artillery was a laborious job under conditions which did not favor a ready defense if attacked. The immense weight of cannon was detrimental and any shifting or upset in the balance could create problems. On 1 September 1758, Colonel Henry Champion recorded: "...that part of ye floating bridge at Fort Edward was sunk by bringing cross a 24 pounder."[8] A lengthy suggestion by a New York City shipbuilder, however, appeared to solve both the problem of effective cannon transportation and provide a positive response against possible French ambush. The plan is also the first known description of a radeau-like vessel.

On 19 August 1755, John Dies wrote a letter to Johnson, who was planning his march against the French based at Fort St. Frederic located at Crown Point, Lake Champlain:

> *To Favour your Landing I think the Folowing would be of Great uce, I would build two or att Least one Flatt... the Sides of this Flott Should be Rais'd, high Enough for a Breast-work to Cover the Men... In Such a Floate you might Mount Some of your Field Pieces, Mand with 40 or 50 Men, it seems to me a thing of this Sort might be of Servis to Cover the armey when Landing...*

Dies told of his plan to Banyar, who wrote four days later with additional details:

> *"...the mounting some of the Field Pieces in these, he thinks may be of great use in your Landing, where a strong opposition will be made; they are to be row'd, or set with Poles, the former is best because the men when at their Oars will not be so much exposed to the fire of the enemy."*[9]

Less than a month later, Johnson commented that he was "building large flat Bottomed Boats for our Artillery...."[10] Responsibility for their construction at Lake George went to Stephen Webster, Captain of the Carpenters. Webster proceeded to "Build Scows or flat Bottom [boats] to transport the canon & war like Stores...," despite soldiers refusing to work and competition for those carpenters employed in building Fort William Henry.[11] It remains uncertain if Dies' plan was utilized by Webster in the construction of these ships.

Johnson did not get past the southern end of Lake George that year. He proceeded to build Fort William Henry, following a French attack on his camp, to secure a British presence as well as fortify a position from which to launch an attack the next year. The French meanwhile advanced from Fort St. Frédéric to the southern end of Lake Champlain, where they constructed Fort Carillon.

Ord, based in Albany throughout 1756–1757, commanded an artillery detachment of 141 men, and frequented Forts Edward and William Henry. During this time John Campbell, Lord Loudoun, British Commander in Chief, described him as "very Industrious, but has no execution...."[12] Ord's exposure to ambush and defeat would be reinforced in 1757 by two events at Lake George. Reviewing the military posture at Fort William Henry in early August, he and several other officers listened in detail to Colonel John Parker's account of ambush. Parker led over 350 men in twenty-five whaleboats on a scouting mission down Lake George. On 24 July, his men were ambushed by a French and Indian force. Less than a month later, Fort William Henry fell to the French, effectively removing a strong British presence at Lake George for the remainder of year.[13]

Dies' description of a radeau-like vessel did not emerge until the July 1758 British attack against Fort Carillon. General James Abercromby led a combined British and provincial force numbering around 15,000 men, hoping to evict the French from both forts on Lake Champlain. On 5 July, his army "...embarked in about 900 batteaux and 135 Whaleboats, the artillery, to cover our landing, being mounted on rafts."[14] These rafts served another purpose as well. James Searing, a nineteen-year-old volunteer surgeon, noted:

> *...it was thought probable, that some batteries might be erected to intercept our passage through the Narrows or Straights, as there was a very difficult place between us and our destination. In order to alleviate this, three redeaus or floating batteries were prepared, two*

> *upon bateaux and one made of timber; upon each of which were mounted two field pieces, as well to cover us from being annoyed by armed vessels, as from ambuscades and lodgements.*[15]

Whether these early radeaux were modified versions of Webster's craft remains unknown. Few details exist describing their shape, but the use of angles was probably certain. Reverend Samuel Niles seemed to be surprised by their appearance when he commented, "Here was, as it were, two floating castles on the lake, and a fleet made up of bateaux and whaleboats...."[16] The radeaux contained six of the approximate 30 artillery pieces in Abercromby's inventory. The rest of the artillery train was carried on 160 bateaux which trailed the radeaux.

Upon landing on the western shore of Lake George's northern end, the artillery was brought ashore, only to remain silent as Abercromby, after many delays, ordered numerous frontal assaults against the French. The attack was a stinging defeat for the British, who continued to send wave after wave of infantry towards a heavily defended breastwork constructed in front of the fort. After a day of heavy losses, a retreat was called. The remaining men and artillery were ordered back up Lake George.

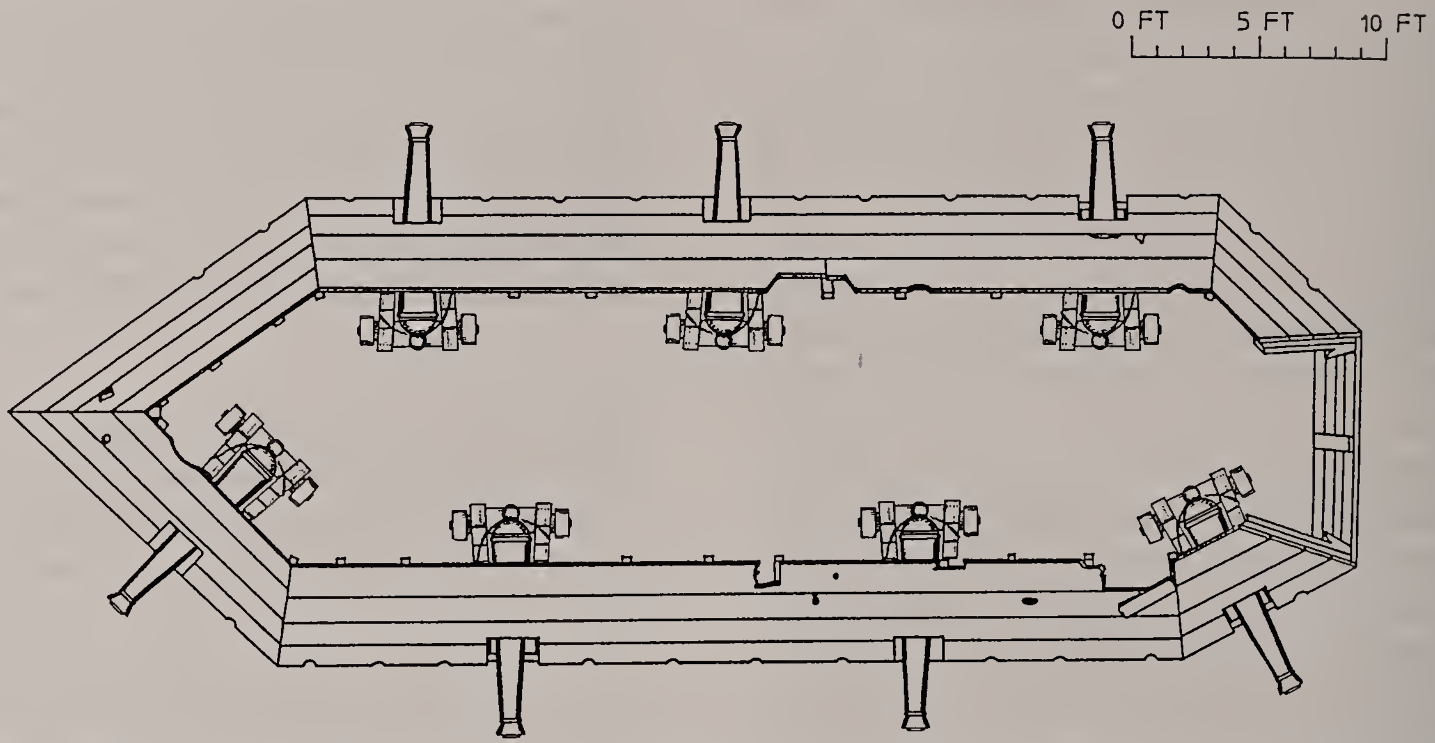
Throughout the remainder of the summer, additional boats, mostly bateaux, and a sloop were constructed in preparation for a renewed effort the next year. In late September and through October, two more radeaux were built. Captain Joshua Loring, one of the few provincials with a commission in the Royal Navy, supervised most of the small fleet's construction. He would serve as naval advisor to General Jeffrey Amherst who commanded the British and provincial forces for the 1759 campaign. Captain Samuel Cobb lead the carpenters in the actual work. On 18 September, Cobb "Began to Work for Captain Ord who Commands the train on a Boat Called the Raddow...."[17]

Cobb participated in Abercromby's campaign, yet recorded no reference to the radeaux used earlier that year. Additionally, he recorded his twenty-one days of work on the current radeaux with little detail. After dining with Ord again on 8 October, he fell ill with dysentery. His sickness hampered construction, rendering him unable to work for a few days, and was debilitating enough for him to decline a dinner invitation with Ord again on 15 October.

The larger of the two radeaux Ord supervised was called the *Land Tortoise*. On 7 October, she was described as a "...large floaty thing.... It is 51 feet in length, about 16 or 18 wide, straight flat bottom, flaring waist about 5' high, then turns with an elbow or timber and covers ye top all but a streak about 8 or 9 feet wide...."[18] The angular shape surprised Dr. Caleb Rea, a regimental surgeon, who examined the vessels under construction with a number of officers that same day and saw "...one of which among other forms is very odd, being seven square sided... she Tumbles in & makes seven squares more, so that she is truly fourteen squares besides her bottom & top...."[19] Seven cannon ports and twenty-six sweep holes were cut along the gunwale. Two days later, following morning prayer and breakfast, Reverend John Cleaveland "...went to see the famous Rideaux to carry Cannon on ye Water, Some call it Ord's Ark, it is planked up higher than a man's Head Shelving in or arching inwards to defend ye men's Bodys & Heads with Port-Holes for ye Cannon."[20]

The *Land Tortoise* and the second, smaller radeau, thirty feet in length and seven feet wide, were launched on 20 October. After a brief one-day test in which they were rowed, both vessels were scuttled on 22 October. The *Land Tortoise* presented some difficulty in sinking, and her crew worked into the night to eventually get her down, which may explain why she was inadvertently sunk in water too deep for any recovery operation at the time. Besides the two radeaux, the sloop *Halifax* and over two hundred bateaux were scuttled for safekeeping during the winter, a common practice to prevent capture or destruction.[21]

With the *Land Tortoise* unreachable for retrieval for the 1759 campaign, General Am-



Top view of the *Land Tortoise* showing overall shape, staggered cannon port placement, and angled cannon coverage. Use of nine-foot 24-pound cannons on naval carriages is presented here as a hypothesis.

herst expressed concern over how he would transport the largest pieces of the artillery train, in this case 24-pounders. "I shall be obliged to leave the heavy guns behind or I shall not get away these ten days," he recorded on 5 July. Realizing that Abercromby refused to use artillery, despite bringing it the year before, the cautious Amherst was in need of an answer. He would have it two days later, when he noted: "Major Ord building a Radeau without which I must leave the heavy Artillery behind me."[22]

Ord, who had been a major since 1 January, supervised and directed the radeau's construction, which began on 7 January. Named the *Invincible*, she was launched on 16 January. Her shape inspired a few men in that "they call it an Ark of Redoubt."[23] She was rowed and tested on 19 January along with rafts made specifically to carry the artillery's supplies. Testing continued the next day as Ord fired every cannon from her ports, although a mistake was discovered in how high some of the ports were cut. This may explain why the *Invincible* carried four 24-pounders and four 12-pounders as she led the artillery train once Amherst embarked on his campaign on 21 July.[24]

Amherst utilized around 11,000 men and, like Abercromby the year before, hoped to gain victory over the French, first at Fort Carillon and then on to Fort St. Frédéric. The artillery train consisted of over fifty pieces, mostly cannon, and required 111 men from the Royal Regiment of Artillery to operate it, of which Ord was the commanding officer. Carriages, powder, and other supplies needed for the train were carried on rafts which followed the *Invincible*. The rafts consisted of bateaux bridged by planking. The platform would allow for the transportation of cannon, resting on their carriages but securely tied to prevent shifting of weight. Henry Skinner, a captain-lieutenant under Ord in the Royal Regiment of Artillery, described how:

> *...it was with the greatest difficulty that the working party got the train imbarked, ready to go with the army, not withstanding they worked all night, owing greatly to the badness of the battoes, for no sooner they were loaded than they were sinking; a large boat with above 100 barrels of powder sunk, and one raft, with two 10 inch mortars....*[25]

Unlike Abercromby's assault the previous year, Amherst landed his army and began siege preparations against Fort Carillon. He was "very anxious to have the battering-cannon and mortars brought up, being resolved not to open on the fort until he can do it effectually."[26] Although a small French force briefly defended their position, portions of Fort Carillon were blown up as the French fell back to Fort St. Frédéric, which they did on 26 July. Amherst advanced, bringing with him the artillery and all boats that could be portaged from Lake George. He immediately began constructing "...boats built for carrying 24-pounders that I may be superior to the Enemy's Sloops in the Lake."[27] Two small radeaux were quickly constructed on Lake Champlain carrying six 12-pounders and one 24-pounder in the bow.

As Amherst again prepared to embark against the French at Crown Point, he received intelligence reports on the size of the enemy fleet. Three French sloops presented a naval presence the British could not challenge until they assembled a comparable force. While a sawmill near Ticonderoga was put to use in building a sloop under the supervision of Captain Loring, Amherst received news on 1 August that the French fell back from St. Frédéric to Isle-aux-Noix, a fortified island in the Richelieu River. He then moved most of his army to secure the newly-abandoned fort three days later, with plans to erect a much larger fort. Despite these gains, the British lacked a strong naval presence on Lake Champlain if the French chose to check British advances.

With more detailed information available on the French fleet, Amherst sought Loring's advice on how to meet this threat. On 17 August, Amherst told Loring:

> *the force the Enemy had and he said the Brig he was building was not sufficient strength without some further help, and with Mr. Ord + him we concluded the quickest and best thing to be done, as the boats we have will not carry the 24-pounders on this Lake, is to build a sort of Radeau for carrying the six 24-pounders which can be done in ten days. This is Ord's favourite Scheme but Capt. Loring thought it likewise the best thing to be done.*[28]

Five days later, Loring, who stayed at Ticonderoga supervising the sawmill and working on the brig, began to cut planking for the radeau. On 28 August, he sent planking to Crown Point, where the radeau was under construction, only to have Ord disagree on their length. Ord communicated his requests through Amherst and later drew up a list of fifty-five pieces of 60-foot-long planking in oak and pine. On 1 September, Loring sent sixty-one three-inch thick pieces which were suitable for use.[29]

Ord again oversaw the radeau's construction to move the largest cannon in his artillery train. Amherst reported to Loring that, "Major Ord has christened his raddeau the *Ligonier*."[30] The "great Reddoe,"[31] as she was called, was launched on 29 September. Her 84-foot length and 23-foot width was pierced with three cannon ports on each side. She shared the angular shape of the previous radeaux, and was built "in such a manner as to render them [24-pounder cannon] servicable on the water, besides barely transporting them over the lake."[32] This "Floating Castle... is of 300 tons and finish'd as strong as Wood and Iron could make her; and contriv'd so that 'tis impossible for the Enemy to board her: She rows with 40 oars on each Side; and has 2 large Masts, and square Sails with running Rigging; so that in short no Ship can lay along Side of her."[33]

Continuing his pursuit of the French, and satisfied with a naval force capable of battling the enemy sloops, Amherst left Crown Point on 11 October in the *Ligonier*, accompanied by the sloop *Boscawen*, the brig *Duke of Cumberland*, two smaller radeaux, and a fleet of bateaux. Moving northward, the British vessels were split up as they pursued the French, eventually reaching the three vessels only to discover they had been scuttled. With winter approaching, Amherst ended his successful 1759 campaign season having occupied forts at Ticonderoga and Crown Point, yet unable to press on to Isle-aux-Noix. A month later, Ord was promoted to colonel.

As Amherst took command of another army for an attack upon Montreal in 1760, Colonel William Haviland led the Lake Champlain force against the French at Isle-aux-Noix. Under Haviland, we have the first recorded use of cannon fire to and from a radeau. Three days before the 11 September 1760 embarkation from Crown Point, sixty men were required to load the artillery aboard the *Ligonier*. Moving his army down Lake Champlain, Haviland led a fleet made up of, in addition to the three radeaux, a brig, sloops, whaleboats, canoes, and bateaux. Five days later, he directed the army to land on the eastern shore of the Richelieu about two miles south of the French fort. The landing army in bateaux headed straight for shore while the "Ligoneir redows & prows kept up a fire on the enemy's fort & vessels, to favour our landing."[34] The troops landed in the early afternoon "without any greate matter of mollistation. The French fired Several Shotts at our Rideau & Sloops & our people fir'd Some at them."[35] The artillery duel between the fort and ships "continued till night very moderate."[36]

Haviland's three thousand man force began their siege preparations — moving artillery into position and constructing a breastwork. A day after the landing, on 17 August:

> *...it was reported the French had abandoned the Island, as they had ceased firing all night. Ordored A Raddoe Commanded by Clegg + three prows to look into the fort. the truth of the above report was discovered at six Capn Cleggs Raddoe was fired upon from the Island, several shots were exchanged.*[37]

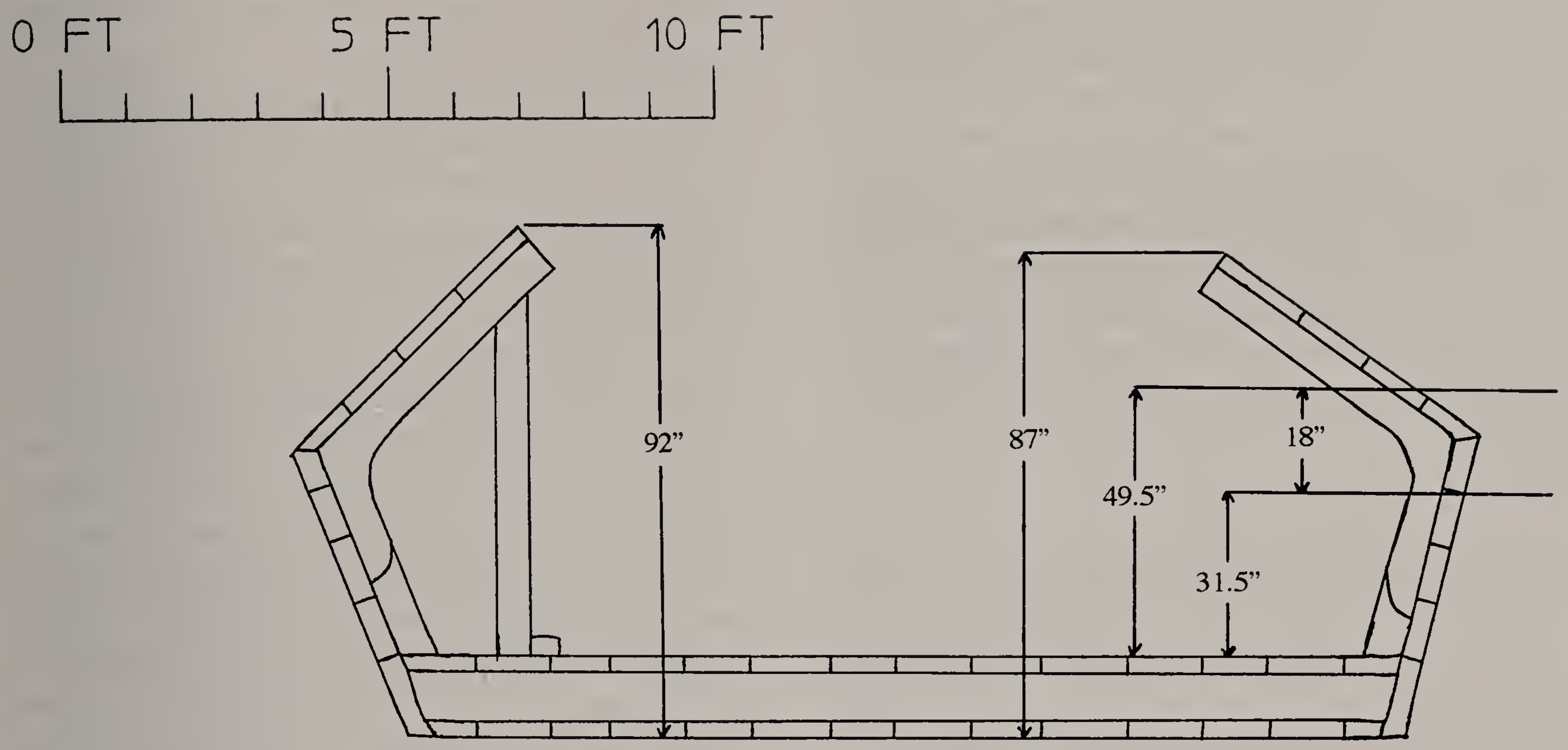
One of the two smaller radeaux was ordered "to go very near the fort the 2d Shot they Received from ye fort one 12 pounder come through ye fashens..."[38] and severed the feet and legs of several crew members.

French fire continued against British preparations until the British began their siege, opening their artillery on 23 August. They carried their siege closer until 28 August, when the French retreated first to St. Jean, then to Montreal. The convergence of Haviland's force with two other British armies, one coming from the west and the other from the east, created a pincer against Montreal. This brought an end to the war when the French surrendered on 8 September.

The use of radeaux continued through the next couple of years, transporting men and supplies on Lakes George and Champlain. The shape of these floating batteries would not see any more use beyond these lakes. Although they were used elsewhere in the war by both combatants, primarily during the sieges of Louisbourg in 1758 and Quebec in 1759, the recorded use of the angular radeaux is present only in this central theater dominated by these two lakes. Combined with their limited geographical use is the larger question of where and how this particular shape originated.

Whereas Braddock's defeat and the concern of ambush may have provided the motivation for describing such a plan, additional influence into the radeau design may have come from books in John Dies' possession. On 20 June 1755, two months before Dies' descriptive letter, Banyar wrote to Johnson that Dies had in his possession two imported books, and suggested that "...there are some things in it which may be of use to you."[39] Those two books may have been *A Treatise Containing the Elementary Part of Fortification* (London, 1746) and *The Attack and Defence of Fortify'd Places* (London, 1747), both written by John Muller, a German-born mathematician who was Professor of Fortifications and Artillery at the Royal Military Academy. Dies' reading of these books may have been influential in suggesting a design which emphasized protection.[40]

Dies traveled throughout the central theater of the war. His skills as a shipbuilder were valued by the British. Whether he had contact with Ord and how his suggestion for a radeau-like vessel moved into actual construction remains unknown. Whereas his letter provides an important starting point for the history of radeaux, Thomas Ord dominates the remainder of the story. Several overlapping points reveal Ord as the primary individual behind the use



Cross section view of the *Land Tortoise* looking aft. Measurements taken of cannon port height above the sole of the vessel reveal the dimensions necessary for cannon and carriage height. The hull and inward leaning bulwark provided about 6.5 feet of effective cover from enemy musket fire. Thickness of the bulwark and hull panels, however, was insufficient to stop a direct cannon shot from penetrating.

and design of these warships.

Ord’s supervision, rather than Captain Loring’s, over radeaux construction is significant because of his position as commanding officer of the detachment from the Royal Regiment of Artillery. As such, it was his responsibility for the safe and efficient movement of the artillery train. Building radeaux became an extension of his preparations for the train’s movement. For Ord, they were not simply boats, but an integral part of his train, as it led the rafts which carried the needed artillery stores.

It is uncertain what effect Ord’s previous exposure to ambush and loss of artillery may have played as he prepared for the assaults against the French at Ticonderoga and Crown Point. We may assume that his experience with Braddock shaped his thinking regarding his command of an artillery train — especially by way of water. His work on radeaux may be seen as a prudent safeguard against a possible repeat of what occurred earlier with Braddock as well as with Parker the year before. Where the fear of ambush suggested the need for such a vessel, Ord relied upon his knowledge of fortification in the actual design and supervision.

That knowledge can be traced to Ord’s formal education at the Royal Military Academy, which opened on 30 April 1741. The Royal Regiment of Artillery had been in existence since 1716. Only a small regimental school operated at Woolwich until the academy opened, providing artillery cadets a professional education. Muller began teaching at the academy when it opened. The curriculum was balanced between theory and practice. Classroom lectures focusing on mathematics, especially trigonometry, physics, and chemistry comprised “theory.” “Practice” combined hands-on training with field fortifications, gunnery, engineering, and moving an artillery train. Ord received instruction as a cadet, then continued training at Woolwich through 1748.[41]

Instruction on fortification was based upon two related but simple points. First, any type of cover or protection given to men and their weapons increased their fighting power or potential. Second, placing obstacles to delay, deter, or otherwise restrict the forward movement of an enemy provided advantages to the defense. The interpretation, use, and adaptation of these principles in the field changed over time. By the mid-eighteenth century, fortification had been greatly influenced by the work of the French engineer Sebastien le Preste de Vauban.

Although Vauban, an engineer for Louis XIV, borrowed and modified many ideas and plans from his European predecessors, his work had a major impact on Muller, who wrote about both fortification and sieges based upon those ideas. Vauban, like those before him, relied upon the combined use of angles and slopes assembled in a variety of engineered works which took advantage of natural terrain features. Mathematics was integral to designing a fort's plan, or trace. The fort's prominent feature was the bastion, which changed from its initial round shape to a polygon once artillery, primarily siege guns, became more powerful and mobile in the fifteenth century. They jutted out from the main wall, or curtain, of a fort as a sharp angular appendage. Its purpose was to increase or overlap the fort's field of fire, and to eliminate any ground where an attacker could fix himself in a relatively safe position. Additionally, they reduced an enemy's ability to inflict enfilading fire, which raked lengthwise along an enemy's flank. Use of bastions and additional outer works surrounding the fort's curtain, including redoubts, redans, and ravelins, displayed the increased application of angles designed to create advantages for the defense.[42]

Ord's knowledge and use of these principles may be evidenced by descriptive terms such as "floating castle" and "Ark of Redoubt," suggesting that contemporary witnesses were viewing what looked more like a floating fortress than a conventionally shaped ship. These terms refer to land-based fortifications and their use in describing radeaux express how certain principles of fortification were incorporated into the radeau design.

Acknowledging Ord's supervision of these vessels (and the eyewitness terms which link the shape with fortification), it is intriguing to surmise that at some time he drew a plan for each vessel, just as the trace to a fort was first drawn out on paper. The entire plan would have been based upon the size of cannon in his artillery train. He then would have listed other details concerning the height of the bulwarks, cannon port details, angles and other features. This information would have been passed on and discussed with Cobb, who then directed the carpenters in the actual construction. Despite the lack of journal or diary accounts regarding what Ord planned, the best and only evidence revealing his intention is the *Land Tortoise* herself. The details of her angled shape and cannon ports reveal Ord's "trace." Moreover, those details show how the *Land Tortoise* reflected principles of fortification.

Today, *Land Tortoise*'s 52-foot, eight-inch length is now wracked as she sits upright in 107 feet of water, listing slightly down by the port bow. A combination of white oak and white pine planking was used in building the vessel. Two panels, the hull and the bulwark, form each of the warship's seven sides, except for the transom, which is missing the bulwark panel. She presents an angled plane regardless of the point of view, and the same shape is generally employed when viewed from the front, top and side. Two parallel lines turn inward to meet a point.[43]

The wall of the *Land Tortoise*'s hull leans outward at an angle between 80° and 85°. At the gunwale it meets an inward leaning bulwark inclined at a 40-45° angle. As Dies suggested in his initial letter, the bulwark was to cover the crew when working the oars and, it can be assumed, the cannon from musket fire. The advantage of an angled bulwark, as opposed to a vertical or upright one, was to increase protection afforded by the thickness of the panel.

Land Tortoise's planking varies in thickness between two and four inches. Inclining the panel, the horizontal thickness is greater than the thickness of a similar panel in a vertical position. To receive the same protection from vertical sides, thicker material would be required.[44]

The angled sides were also considered a final protective measure in close combat. The sides of the *Ligonier* were recorded as making it difficult for enemy boarding. The hull and sloping bulwark provide little positive support or foothold, except from an open cannon port. Consideration of enemy boarding and protection from the short range of musket fire reflect how initial planning revealed use within a short range hostile environment, exactly the conditions which characterize an ambush. Although sloping sides may have been considered a defensive measure to increase survivability at close range, it would be that kind of situation in which a radeau was not well suited, especially if enemy cannon were within range. As the *Ligonier* showed, the ideal role would be to take advantage of the long range cannon fire.

Despite the emphasis on protection, the wooden construction of the *Land Tortoise* would have been no match for the energy produced by enemy cannon fire. Even though angled sides help dissipate the transfer of energy from cannon fire striking at a flat trajectory, the thickness of the planking was insufficient to stop penetration. As one of the two smaller radeaux on Lake Champlain revealed, cannon shot had enough energy to easily pierce the wooden planking. A hit would smash the bulwarks or hull and cause splintering, wounding or killing crew members. Clearly, *Land Tortoise*'s planking would offer effective cover from musket fire only.

Supporting the hull and bulwark are grown knee frames and stanchions, which not only brace the angled sides, but also provide additional strength for the planking when under fire. One vertical stanchion is present bolstering the starboard bulwark. Overall, *Land Tortoise*'s hull and bulwark offered about six and a half feet of cover, ample vertical protection for the crew to work the sweeps or operate cannon. Viewing holes in the bow's bulwark planking confirm that crew members could monitor forward progress while standing, yet remain completely behind protective cover.[45]

How Ord arrived at the specific inclination of the hull and bulwark remains unknown. Use of the grown knee frames and stanchions may have affected the degree of inclination, or perhaps he sought after a certain number when he supervised her assembly. Despite the uncertainty, the angle remains fairly consistent throughout the vessel. The combined vertical angle of the hull and bulwark on the vessel's exterior varies between 112–115°.

From a top view, *Land Tortoise*'s bow turns inward from the sides between 35–44°, where they meet to form a point. The pointed bow is remarkably similar to a fort's bastion, with the bow related to the bastion faces and the vessel's sides being its flanks. From water level, the entire vessel would look like a detached, elongated bastion surrounded by a massive water-filled ditch — the lake itself. Face angles in a fort's bastion varied depending upon the distance between bastions, but they generally were acute. *Land Tortoise*'s bow angle, however, is slightly larger at 96°. Similar to the bow, the starboard and port quarters also turn in, between 28° and 44°; however, they meet a flat stern. The inclined bulwarks combined with pointed bow and angled quarters supplied protection from enfilading fire. Crew members working the side guns were protected by the bow and stern bulwarks, which turned inward. Similarly, bow and quarter positions were covered by the side bulwarks.[46]

Comparable to a fort's design, the angular shape of the *Land Tortoise* offered protection which aided the defense in fighting. Gunners who manned the cannon could operate in a shielded environment without the fear of being struck by an incoming musket ball. Moreover, the same goal is seen — increasing survivability by protection and keeping the enemy at a distance by using artillery. The low profile of the vessel combined with sloping bulwarks is shared with the sloping approach of the glacis and parapet of a fort. If approached by an enemy who desired to board her and capture the artillery, the sloping sides offered delay and a deterrence, in addition to revealing little knowledge of what faced them once they cleared the bulwarks. Ord, following a key principle, adapted his fortification to the terrain, in this case water, and the result was a warship based upon fortification.

The protective features of the *Land Tortoise* can be considered secondary to the original purpose for the vessel: to carry artillery. Ord's knowledge of artillery and its required carriages was an integral part of her construction. A cannon's size dictated the size of the carriage, due to the different lengths and weights of pieces, but the determining factor was the cannon's bore. That measurement influenced the height of the carriage, and thus the height of the cannon ports above the floor, or sole, of the vessel. An examination of the cannon port details and related structures reveal that the *Land Tortoise* was "built around" cannon carried in Ord's artillery train. Moreover, the cannon port details gleaned from archaeological fieldwork provide information not revealed in journal accounts or outline drawings by contemporary witnesses.

The *Land Tortoise* features seven cannon ports positioned in an offset, or staggered, layout. Four cannon ports are located on the port side and the starboard contains three. The staggered formation allowed for cannon recoil and efficient operation within the craft's interior width of 17 feet 10 inches. Cannon in the port bow and port quarter positions increased the field of fire and could engage targets within a wide range without necessarily moving the vessel by sweeps. The offset formation and use of cannon in the port bow and port quarter positions precluded cannon from being placed in the starboard bow and quarter, due to lack of space.[47]

The staggered design of the *Land Tortoise* differs from the apparent symmetry of the cannon positioned in both the *Invincible* and *Ligonier*. Because the *Land Tortoise* was smaller in width than the *Ligonier*, and perhaps the *Invincible* also, a staggered layout was necessary to accommodate the cannon and to place as many guns as possible.

Three of the port plugs, or doors, have been recovered for preservation and study. One is missing, and the rest remain in place. These plugs may have served as doors, but no hinging or apparatus for their operation has yet been found. As doors, they would have covered the largest openings in the vessel's sides and may have been employed in that manner to increase protection from musket fire as well as prevent a foothold in an attempt of enemy boarding.

The seven ports are approximately eighteen inches in height, while the widths vary between twenty-one and twenty-three inches. Each port offered ample room for the cannon, and the generous width may suggest some lateral training was allowed to increase the field of fire. They were not cut symmetrically from the gunwale. The carpenters cut the majority of each port from the bulwark panel. For example, the starboard center port has nine inches cut out from the hull and sixteen inches removed from the bulwark. Cutting in this fashion allowed for cannon elevation, affecting the range of the shot, without being limited by the inclined bulwark.[48]

Ord's planning for the cannon can be seen by the placement of stanchions next to each cannon port. The spacing of the frames and stanchions throughout the vessel is random and irregular, except for those which border the ports. The stanchions next to each port are longer than the others, and on the outside edge of each is a frame. The result is a supported and bracketed opening through the planking. Not only would this increase the strength of the sides as the gun was run out, but the location of the stanchions and frames provided a strong support for the necessary hardware used to hold the carriage's breeching tackle.[49]

Because the vessel was scuttled, no artifacts or cannon were expected to be found in or around the vessel. Knowledge of the cannon port height and an examination of artillery used during the 1758–1759 campaigns provides a basis for an examination of what size cannon

Ord had planned to carry aboard the *Land Tortoise*.

A combination of cannon, howitzers, and mortars made up the artillery train providing the offensive weapons to carry out a siege. Cannon were employed first in battering and hopefully breaching a point in the enemy's fortified position. As the siege grew closer, howitzers and mortars lobbed shot over the elevated defensive works. Cannon brought by General Abercromby for use against the French in his 1758 attack consisted of four 18-pounders, six 12-pounders, and six 6-pounders, with a small assortment of mortars and howitzers. Following the return of the British and provincial force to their encampment at the southern end of Lake George, two brass 24-pounders were positioned in a field battery to defend the boatbuilding efforts. As winter approached, these 24-pounders and most of the artillery supplies were prepared for travel by oxen teams to Fort Edward for storage.[50]

The next year, about two weeks before Amherst's embarkation against the French, the artillery was brought to Lake George by oxen and readied for use. On 3 July, James Henderson recorded, "This day they have carried the cannon to the Lake there is Very fine Artillery There being amongst many others 6 24 pounders of Brass 4 Large Iron Guns I suppose them to be 18 pounders...."[51] In addition, Ord's inventory included ten 12-pounders, seven 6-pounders, and three 3-pounders, with eleven howitzers and five mortars. He loaded the *Invincible*, again perhaps due to the error in cutting the port heights, with four of the brass 24s and four 12-pounders. An additional clue of *Land Tortoise*'s planned armaments may come from Henry Skinner. On 2 July, Skinner, referring to her supposed capture by the French, noted that she had "mounted eight battering pieces."[52] Battering pieces were considered to be 24- and 18-pound cannon. Did Ord have 24-pounders in mind when the *Land Tortoise* was under construction?

The brass 24-pound cannon was the largest piece in the train. It was a 9.5-foot long cannon that weighed between 5,100–5,200 pounds and threw a 24-pound ball 5.5 inches in diameter. The striking energy was substantial; thus, this size cannon was favored for use when breaching the walls of a fort. Experiments conducted in 1740 at the French artillery school in Metz revealed the capability of this piece. At the close range of forty yards, using a large 16-pound powder charge instead of the normal eight, the 24-pound ball could penetrate eleven feet of earth or three feet against masonry. Energy dissipated at longer ranges, and so did the effects. At 1,240 yards, the shot could penetrate through only one foot of earth and three inches in masonry. Against oak, the ball could pass through forty-three inches at a range of 120 yards, making wooden targets, primarily ships, vulnerable to damage.[53]

Cannon, regardless of the size — except for the smaller swivel pieces — were useless without the support of a carriage. The dimensions of the carriage's parts were based upon the bore size of the cannon for which it was made to support. They fell into two specific types, depending upon mobility and ground surface. The field carriage featured two large spoked wheels which supported most of the cannon's weight. Two cheeks formed the trail and sloped behind the wheels, eventually making contact with the ground. The large wheels made for easier movement over land and between field battery positions. This carriage was used when relatively quick mobility was needed over rough terrain.

The naval or garrison carriage used four wheels, or trucks, supporting a cradle-like structure. The front wheels were larger than the rear to alleviate the effects of recoil. It was advantageous when used on the smooth surface of a stable platform such as a ship or fort. Elevation was accomplished by adjusting the stool, a wedge which rested underneath the base ring near the end of the cannon.

Cannon could use either carriage. Yet the height of the cannon, above the ground or floor, varied due to the construction and wheel differences between these two carriages. The height of the cannon port above the sole, or floor, of the *Land Tortoise* is important in considering carriage types. The distance between the upper edge of the port to the sole is 49.5 inches, and the distance between the lower edge of the port to the sole is 31.5 inches. The height of the seven ports using these dimensions indicates knowledge of known cannon and their respective carriages.[54]

Based upon the height of the wheel, axletree, and cheek piece, a naval carriage made to support a 24-pound cannon was approximately thirty-eight inches in height. The overall carriage length was six feet. Circular notches in the carriage held the trunnions, two lugs just below the middle of the cannon which provided the pivot point and on which most of the cannon weight rested. With a cannon in place, almost half of the gun's 12-inch diameter would rest below the top edge of the carriage. This close match between the heights of the cannon port and a 24-pound naval carriage makes this particular armament a strong possibility for what Ord intended when the *Land Tortoise* was constructed.[55]

The low profile of the *Land Tortoise* and her cannon position suggests that approaching enemy bateaux, canoes, and their occupants would have been well covered by the radeau's armaments. Although the *Land Tortoise*'s draft, loaded with the combined weight of thousands of pounds of cannon, carriages, shot, powder, and crew is hard to determine, cannon fire would most likely have been no more than five feet above the surface of the lake. Point blank firing, 0° elevation, in a 24-pounder had a range of just under 1,500 feet. Use of canister shot against approaching enemy bateaux would have been quite lethal, with each shot consisting of between forty-eight and eighty-four 4-ounce balls, each of which was 1.2 inches in diameter.

No evidence has been found regarding cannon ports or armaments for the second, smaller radeau constructed at the same time, but her size was probably designed for smaller cannon. The use of naval carriages would be obviated once land was reached. As part of a land campaign, field carriages were required, and cannon would be placed on them as soon as possible. Spare carriages were brought along as part of the train as replacements in case of damage.

The use of radeaux for transporting the heaviest cannon is noted primarily in the *Invincible*, *Land Tortoise*'s replacement, and the *Ligonier*. The effort spent preparing a safe, operable passage for the largest cannon served a two-fold purpose. First, the value of the largest cannon was recognized as integral to a successful siege. The protection given to the cannon encased within a radeau revealed that value. Secondly, the more immediate, short term use of these large cannon revealed the serious consideration of ambush and the desire to defeat any attempt at capture. Where operational cannon protected the army afloat, the fortified design of a radeau in turn protected those cannon and her crew.

The use of radeaux on Lake George in both the 1758 and 1759 campaigns revealed preparation against an ambush which never materialized. The French did not challenge a British landing, nor attempt to disrupt the forward movement of the army as it moved afloat. Rather, they chose to engage the British and provincial forces from within their defensive position based at Fort Carillon. It is the Lake Champlain radeaux where we see a much larger role. In addition to protective escort duties, they pursued French vessels and utilized covering fire while the army landed.

Ord constructed radeaux in the campaigns in which he served to fulfill his need in moving artillery, yet the continued construction of these angular vessels is nowhere to be found after him. The British retained use of the word "radeau" with the *Thunderer* used on Lake Champlain against American forces in 1777. Whereas the flat bottom and 24-pounder armament is perhaps the only similarity to what Ord utilized, the shape of the *Thunderer* bears little resemblance to the radeaux of the French and Indian War.[56]

Despite the sudden disappearance of the radeau design, use of angled sides in warships would continue, yet vary considerably, following this conflict. Spain used sloping bulwarks on their massive floating batteries in the Siege of Gibraltar during 1782. Perhaps the most similar shape would emerge in the American Civil War. Both the United States Navy and the Confederate States Navy employed iron-plated angled sides matched with steam propulsion. One Confederate ironclad, the *Albemarle*, featured a hull leaning outward at 45° angle with a sloping casement at 35°. More recently, the United States Navy has applied the successful stealth technology of the F-117A fighter and tested it in a naval application. The result was the *Sea Shadow*. The sides, bow and stern feature sloping planes designed to reflect radar waves in a different direction from which they came, making electronic sensory detection much more difficult. The application of angles show how one design feature continues to be applied despite the changing climate of technology. Where its use disappears in one age, due to changes in raw materials, tactics, and economics, it reappears when those same conditions favor its return.[57]

Radeaux were one of several means of moving artillery afloat. Rafts, bateaux, whaleboats, sloops, and other vessels also carried parts of the artillery train. The origin of radeaux reveals the fear and concern of enemy ambush and opposition. Their design indicates knowledge of European fortification and their use highlights how Ord was instrumental in protecting key pieces of the train. Where he witnessed the effects of ambush and the capture of artillery, he used his experience and relied upon his training in the construction of these "arks" hoping to succeed in a hostile climate.

Colonel Thomas Ord sailed from Staten Island near the end of October 1761 with two companies of the Royal Regiment of Artillery. Despite the peace ending the French and Indian War across North America, the fighting continued as part of the larger Seven Year's War. Ord was shipped to Barbados in preparation for an assault against the French-held island of Martinique. The British succeeded in their attack during January and February of 1762. Ord returned again to North America as colonel, commanding an artillery battalion in 1771. He died six years later on 18 April in Bath, England.

Two years before Ord's death, the Earl of Dartmouth noted that his "...long + faithfull services in America render him an object of public attention."[58] One historian, writing in 1865, noted that Ord's work in making radeaux was "worthy of mention."[59] As a memorial to his career, he was given five thousand acres of land near Newcomb, Essex County, New York, a common practice at the time to reward military service. A surviving piece of his service, and a tangible reminder of the French and Indian War, lay at the bottom of Lake George. The *Land Tortoise* is part of New York State's Submerged Heritage Preserve, an underwater museum in which divers can view her from behind a protective chain barrier. She is listed on the National Register of Historic Places, and has been nominated as a National Historic Landmark.

NOTES

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York, 1921), 712.

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18. Trowbridge, *The Champion Genealogy*, 431. Champion sketched a top view outline of the *Land Tortoise* with his description.
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20. John Cleaveland, "Journal of Rev. John Cleaveland," *Bulletin of the Fort Ticonderoga Museum*, 10 (1959), 3:229.
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23. James Henderson, "James Henderson's Journal," *The First Half Century of the Society of Colonial Wars in the Commonwealth of Massachusetts, 1893–1943*, Publication No. 11 (Boston: Society of Colonial Wars, 1944), 204.
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26. John Knox, *An Historical Journal of the Campaigns in North America*, 1, Arthur G. Doughty, ed. (Toronto: Champlain Society, 1914), 506.
27. Webster, *The Journal of Jeffrey Amherst*, 147; Eli Forbush, "Letter from Eli Forbush," Stephen H. P. Pell, *Fort Ticonderoga: A Short History* (1935: Reprint, Ticonderoga, NY: Fort Ticonderoga Museum, 1990), 51. The two radeaux depicted in Thomas Davies' watercolor "South East View of Crown Point" are most likely the two smaller radeaux built on Lake Champlain. This painting is contained in the collections of the National Archives of Canada and was published in Russell P. Bellico, *Sails and Steam in the Mountains: A Maritime and Military History of Lake George and Lake Champlain* (Fleischmanns, NY: Purple Mountain Press, 1992), 96.
28. Webster, *The Journal of Jeffrey Amherst*, 157–258.
29. Letters from Amherst to Loring and Loring to Amherst, 10 August – 7 October 1759. PRO 285/1, 34/64, microfilm.
30. Letter from Amherst to Loring, 6 October 1759. PRO 285/1, 34/64, microfilm. Italics added. Ord most likely named her after John Ligioner, a Lieutenant-General in the Battle of Fontenoy who commanded the British infantry and served as an advisor to the

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44. Abbass, *1991 Field Season*, 161; *1992 Field Season*, 104.
45. Abbass, *1991 Field Season*, 99–100.
46. Abbass, *1991 Field Season*, 87, 161; *1992 Field Season*, 104.
47. Abbass, *1991 Field Season*, 160.
48. *Ibid*, 87–89.
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50. *The New York Mercury*, 14 August and 18 September 1758; James Henderson, *The First Half Century*, 200; Leonard Spaulding, "Lieut. Leonard Spaulding," *Vermont Historical Gazetteer* 5 (1891), Part 2:30; Daniel Shute, "Journal of Rev. Daniel Shute," *Essex Institute Historical Collections* 12 (1874), 138.
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for 24-pounder was nine feet in length and about 44 inches in height.

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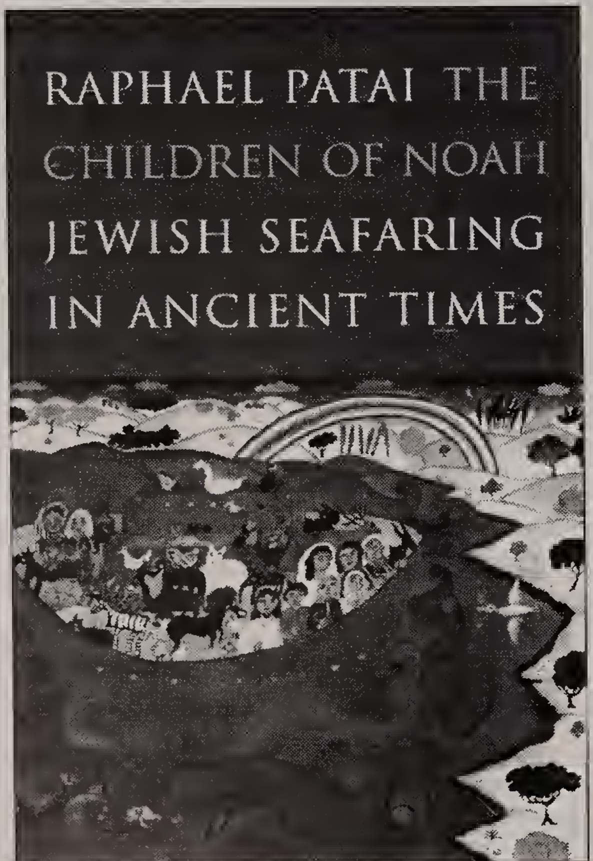
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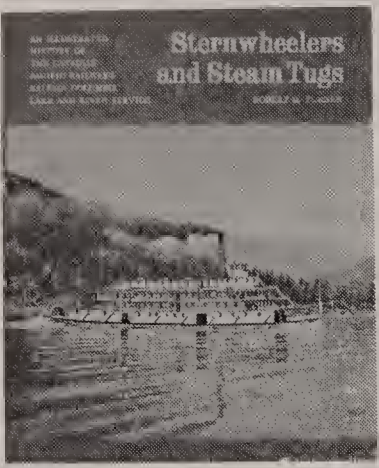

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WE FLED FROM THE VALLEY OF DESTRUCTION:
AMERICAN ESCAPES FROM MILL AND FORTON PRISONS, 1777–1782

FRANCIS D. COGLIANO

In late November 1778, American seamen held as captives at Mill Prison in Plymouth, England, began to dig a tunnel out of the main building that housed them, carefully hiding the dirt and stones they excavated. When they completed the passage on 28 December, the prisoners divided themselves into small companies and drew lots to determine the order in which they would leave the prison. The three men most responsible for digging the tunnel went first. One man who was in the second cohort to go was Charles Herbert, a twenty-one-year-old privateersman from Newburyport, Massachusetts. Herbert and his company passed through the tunnel shortly after midnight. Having made it through the passage, the fugitives next had to climb four walls so high Herbert noted "that I could just jump and catch the tops of them." Despite the obstacles, the mariners "went over like greyhounds" in a bid to obtain their freedom. All told, 108 prisoners made their escape from Mill Prison that cold December evening.[1]

Having obtained his freedom, Herbert was desperate to keep it. He and five other escapees joined forces and wandered through the dark Devon countryside looking for the road to Teignmouth, a town some forty miles to the east, where they hoped to board a ship and escape the country. After rambling "about the fields, up hill and over dale, over hedges and through ditches" that night, Herbert and his comrades were shocked to learn when the sun rose on 29 December that they were only three miles from Plymouth. The sailors spent the day hiding in a hedge from parties of soldiers and civilians who were hunting the escapees, eager to secure a reward of £5 for recapturing each American prisoner. Herbert and his friends spent nine hours in the hedge waiting for darkness to return so they could continue their journey. At one point, the young New Englander stretched his leg, cracking his knee, which alerted a group of farmers armed with clubs and flails. The farmers, under the direction of a naval officer, took the prisoners into custody. After approximately eighteen hours of freedom Herbert returned cold, aching, hungry, and exhausted to face the prospect of forty days confinement in the prison's "Black Hole" on half rations as punishment for his bid for

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An early version of this article was presented at the meeting of the Historical Association on 21 October 1996 at La Sainte Union College, Southampton, England. I would like to thank John Rule, Derek Edgell, Jane McDermid, Sofia Edwards, and Adrian Smith for their helpful comments during that session. Commander Paddy Johnston, R.N. (ret.), read the manuscript and provided many useful suggestions for which I am very grateful.

Plymouth Harbor, 1788. Mill Prison was located in the community of Plymouth Dock immediately to the west of Plymouth. Prisoners were normally held on prison hulks in Plymouth Harbor before being brought before magistrates and committed to Mill Prison. Courtesy National Maritime Museum, Greenwich, England.

personal liberty. Over the next few days, search parties recaptured most of those who escaped. Twenty-two inmates eluded their pursuers and avoided recapture.[2]

Efforts, both successful and unsuccessful, were made by prisoners to escape from the two major British institutions that held American seamen during the War of Independence: Mill Prison in Plymouth and Forton Prison in Gosport, near Portsmouth. Historians have frequently approached the question of American escapes from British captivity from nationalistic perspectives. American historians, often relying on nineteenth-century memoirs left by former prisoners, have stressed American ingenuity, bravery, and determination in overcoming British cruelty to effect a series of heroic escapes.[3] British historians, relying on British public records, have stressed the relatively benign nature of the prison regime and the consequent ease of escape.[4]

More than 2,400 American mariners were imprisoned at Mill and Forton prisons between 1777 and 1782. They were split evenly between the Plymouth and Gosport facilities.[5] Most of the inmates were captured from American privateers. During the War of Independence, between two and three thousand American privateers roamed the seas in search of valuable British prizes. They enjoyed an important measure of success, with privateers from New England, New Jersey, and Pennsylvania capturing 2,106 enemy prizes. Estimates of the number of sailors required to man the revolutionary privateers range from 58,000 to 70,000 crewmen. These men were drawn to privateering by a variety of motives, from patriotism to a desire to earn the sort of prize money that eluded their counterparts in the state militias and the Continental army and navy. Doubtless, the majority were motivated by a mixture of devotion to the rebel cause and desire for personal profit.[6] Although the prisoners represented every state and several foreign countries, a statistical profile of those held in Mill Prison reveals that sixty-eight percent of the inmates at that facility were New Englanders, with the overwhelming majority hailing from Massachusetts.[7]

Once imprisoned, there were three ways that the mariners regained their freedom: escape, exchange, and by enlisting in the Royal Navy. Evidence from Mill Prison suggests that exchange was the most reliable means of egress. Although the British and Americans faced a host of legal, diplomatic, and practical problems over the issue, more than twenty percent of Mill inmates were exchanged during the war. A comparable proportion were exchanged from Forton. An alternative to exchange was enlistment in the British service. British officials brought great pressure to bear on the prisoners to enlist in the Royal Navy, which always required trained men. These efforts met with a degree of success. At Mill Prison, nearly sixteen percent of prisoners joined the Royal Navy to secure their release. Prisoners opted to enlist in the Royal Navy for a variety of reasons. Many were natives of the British Isles who felt little attachment to the rebel cause. Still others enlisted in the belief that service in the Royal Navy would provide greater opportunities to desert, and therefore win their freedom, than by remaining in prison.[8]

From the moment they were committed, American prisoners endeavored to escape from Mill and Forton prisons. Sheldon S. Cohen has estimated that there were over 200 attempted escapes from both sites, and that "at least 25 percent of the American detainees were involved in some sort of breakout enterprise."[9] During the whole of the war, there were more than one hundred escapes, attempted escapes, and escape plots detected at Mill Prison which resulted in the escape of 8.8 percent of the American prisoners. Escape was an even bigger problem at Forton, a less secure institution.[10]

Neither Mill nor Forton were physically imposing. Soon after the prisons opened in the spring of 1777, the Admiralty ordered the Commission for Sick and Hurt Seamen (CSHS), which was responsible for the jails, to examine means of improving security and deterring escapes.[11] One problem at both facilities was the inadequacy of the guards. At both, responsibility for guarding the prisoners fell to the local militia and regiments of invalids who were unfit for combat in America. The CSHS felt that these men were not up to the task of maintaining security in the prisons. After a series of embarrassing escapes from Forton, the CSHS sent an investigator to the Hampshire prison whose report was forwarded to the Admiralty in November 1777. The Commissioner wrote of the 4th Regiment of Invalids that had been on guard during his inspection:

> *from all the observations [I] could make and what [I] could learn upon different circumstances, and upon the Escapes, such a Corps, from the various Infirmities, natural Inabilities, & even incorrigible propensity to Drunkenness cannot be deemed fit in any respect for the Duty, & trust of such a Guard, over a no. of men confined under circumstances of those Pris[on]ers from whom every attempt, however desperate to gain their liberty may be expected.*[12]

The government undermined the ability of the guards to prevent escapes when it forbade the firing of loaded weapons at escaping prisoners in the wake of Burgoyne's surrender in October 1777. Despite this prohibition, there were enough incidents of guards shooting at escaping prisoners to give more cautious potential escapees pause for thought. Indeed, in February 1782, guards at Mill Prison shot and seriously wounded Captain Bennet Neigus as he attempted to escape.[13]

Despite the insecure structure of the prisons and the inconsistency of the guards, would-be escapees faced a couple of substantial obstacles. In July 1777, the government introduced a £5 reward for every American captured outside the prisons. This was a substantial figure, far in excess of the 10s. that recaptured European seamen would fetch once France, Spain, and Holland entered the war. The reason for the discrepancy was because the Americans, unlike the Europeans, were not held as prisoners of war, but as criminals accused of the capital crimes of piracy and treason. The presence of local people, dubbed "five pounders," eager to capture escaped Americans was a serious impediment to successful escape.

Nathaniel Fanning, a Connecticut native imprisoned at Forton remembered:

> *It would be very easy for the Americans to make their escape hence even in daytime were it not for the peasants who were always lurking about here, followed by their dogs and armed with great clubs... upon the report of one of us having made his escape, I could see sometimes seventy or eighty in a few minutes in search of their booty, beating the bushes, running to and fro, from ditch to ditch, till they got fast hold of the poor Yankee.*

Jonathan Haskins, a prisoner at Mill lamented, "It is almost impossible to escape, as the people are allowed by Government £5 per head and they would sell their fathers for ½ the money."[14] It is thus likely that the "peasants" of Hampshire and Devon did more to guarantee security than the guards.

Perhaps the greatest obstacle to escape was financial. Once free, escaped prisoners needed money to bribe suspicious officials, secure transport and lodging, and to book passage out of the country. Without money it was difficult for escaped prisoners to remain free for long. The night before his escape Charles Herbert noted, "Never did I know the true value of money until now; if I had four or five guineas, I could scarcely have a doubt of my liberty; but from the want of this I expect to be brought back again."[15] Some prisoners viewed the lack of funds as an insurmountable barrier to attempting an escape, especially when viewed against the punishments meted out for an unsuccessful attempt. As Caleb Foot of Salem, Massachusetts, wrote disconsolately to his wife from Forton in August 1780:

> *It is impossible for a man to make his escape from this [prison] without the help of money to get him off the island; and if he is taken up again sometimes they will keep them on board their ships-of-war, and if we are brought back to the prison again we must lie forty days in the black hole and upon half allowance ... and likewise put upon the back of the list and will not be exchanged until the last.*[16]

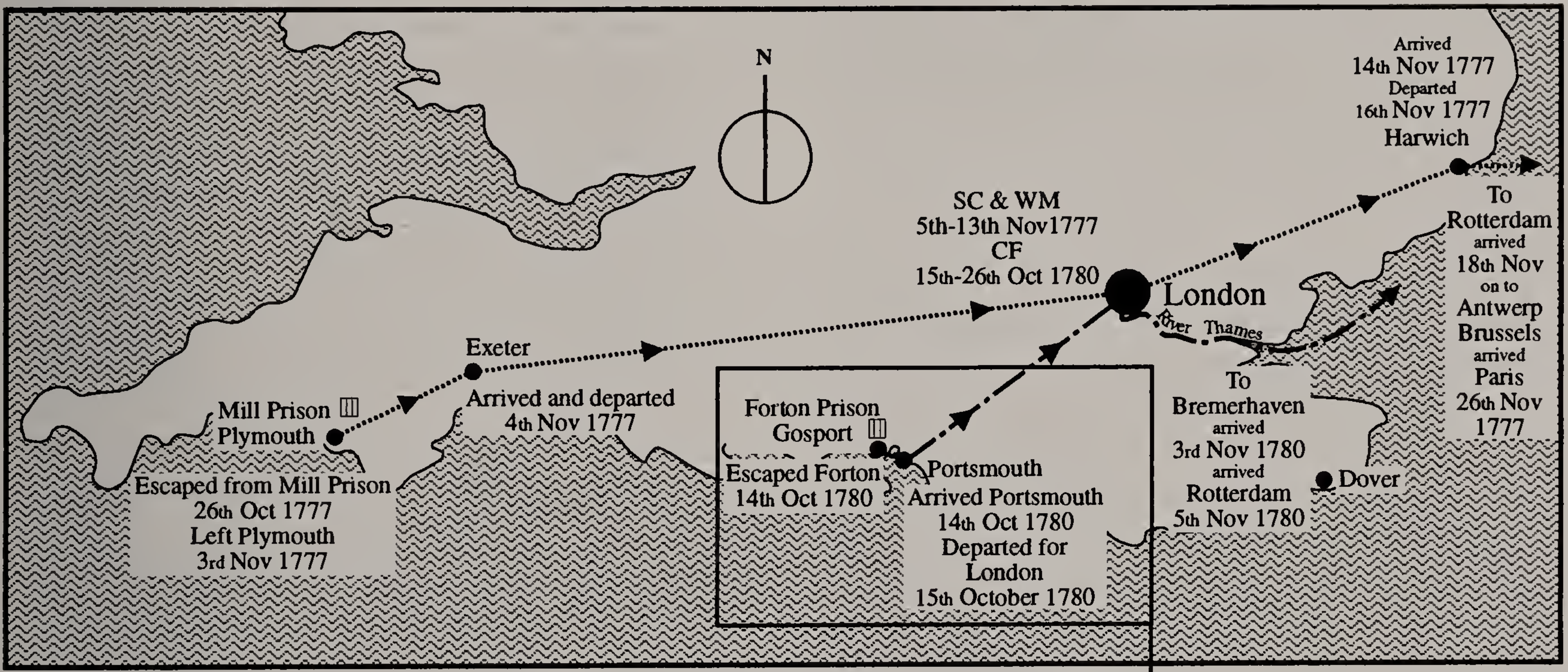
When impecunious prisoners weighed the risk of punishment against the likelihood of success, many probably elected not to attempt to escape.

There were several ways prisoners could acquire the funds necessary to aid in a successful escape. They had access to a market at the prison gates which not only allowed them to raise the funds necessary to escape, but to contact sympathizers who might assist their escape attempts. There was a fairly lively economy within the prisons. Charles Herbert manufactured wooden boxes to sell to curious British tourists, and Bostonian William Russell established a school. Sympathetic Britons made donations which were divided among the prisoners. In December 1777, a group of sympathetic London merchants began a subscription to benefit the prisoners. Within a month they raised £3,700. Officers received more from the subscription drive than enlisted men, and they came to prison with more funds than their seamen. As a consequence of their superior financial resources, officers escaped successfully at a rate greater than common seamen. Records for Mill Prison reveal that 48.8 percent of officers successfully escaped from the facility between 1777 and 1782 compared to 6.2 percent of common seamen. Money was probably a more significant obstacle to escape than walls or guards.[17]

Captive American mariners employed a variety of escape strategies. Evidence from Mill Prison suggests that tunneling out of prison was the most commonly attempted, and that more prisoners successfully escaped by this means (60.6 percent) than by any other. Despite the

Escape Routes from Mill and Forton Prisons

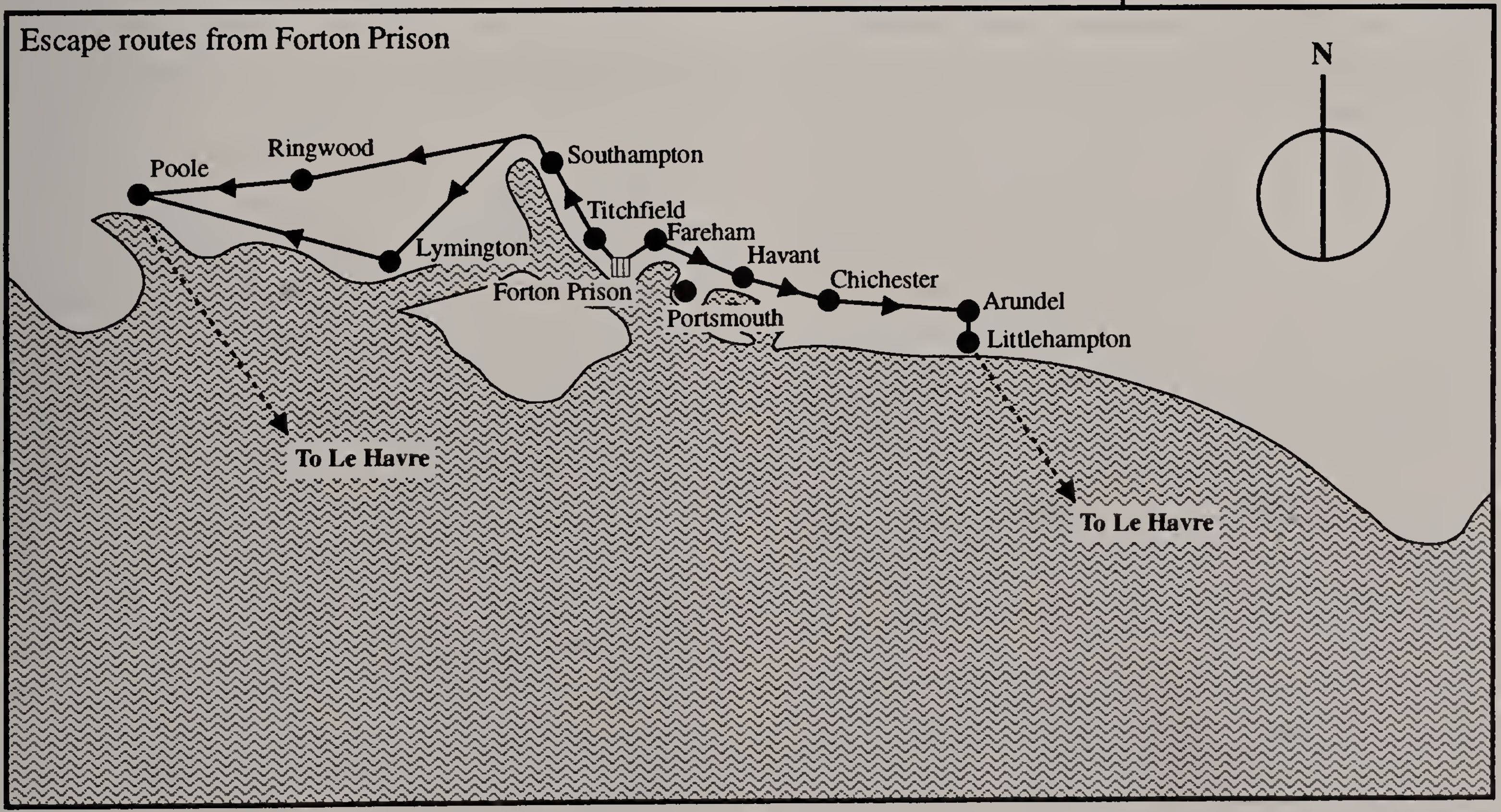
Map 1



Key

- —·—▶ Route of Caleb Foote, Oct-Nov 1780
- ········▶ Route of Samuel Cutler and William Morris, Oct-Nov 1777
- - - - -▶ River and sea escape routes
- ———▶ Overland escape routes
- ▥ Prisons

Map 2



Graphics by Chris Hardman

frequency of attempts and the sometimes spectacular results, tunneling was, in proportional terms, the *least* successful means of escape. Mill Prison data suggests that only 23 percent of attempted escapes via tunneling were successful. The apparent anomaly between the low success rate versus the high percentage of prisoners who escaped via tunnels is explained by the unique difficulties that tunneling presented to would-be absconders and the sheer number of attempts made.

The records left by American revolutionary prisoners in Britain reveal that tunneling was a near-constant activity at Mill and Forton prisons. While some of the attempts at "mining," as the prisoners termed it, were probably undertaken as diversions to relieve the tedium of incarceration, serious efforts required careful planning and painstaking effort. Successfully digging a passage required the cooperation of many men. A small group (usually between two and four prisoners) did the actual digging while their comrades distracted the guards, covered for the diggers when the prisoners were counted, and removed and hid the dirt from the tunnel. The last task was the most difficult. Guards discovered many tunnels when they noticed telltale signs of fresh dirt in unlikely places. As William Russell wrote from Mill Prison in October 1780, "the soldiers came into the prison to turn us out as usual, upon going into the officers' room and moving some Chests found them heavy, upon opening found dirt which had been dug out of a hole we had been forming for our escape."[18] Hiding dirt tested the ingenuity of the captives.

Nathaniel Fanning provided a detailed description of the tunneling procedures at Forton:

> *The dirt was partly lodged in an old stack of chimneys nearly in the centre of our prison; the fire places below having been for years before stopped up, and we were lodged upon the second and third floors. The chimney aforesaid being white-washed, we used when our work was finished for the night, to paste a piece of white paper over the hole where we emptied the dirt into the hollow of the chimney. The dirt &c. was put in small canvas bags, by those who were employed in digging under ground and from thence passed from one to the other until it was at the place of deposit, where it was emptied, and then passed back to be filled again, where the diggers were at work. This kind of work began generally about 11 o'clock at night, when all was still excepting the sentinel, who would from time to time cry "All's well," and last till about 3 o'clock in the morning.*[19]

Without the cooperation of many prisoners, it was impossible to complete a tunnel successfully. Given the arduous and careful work required, it usually took several weeks to finish the task.

With so many people involved in digging and secreting dirt over such a long period, it is not surprising that prison officers frequently discovered tunnels. The still of many an evening was disturbed by the sounds of digging, which led sentries to unauthorized exits and their authors. Since teamwork was essential to the successful construction of a tunnel, keeping the project secret was impossible. Keeping the information from their jailors depended on the discretion of the prisoners. Not surprisingly, informers among the prisoners occasionally revealed the presence of tunnels.[20]

The practical difficulties posed by tunneling account for its relatively low success rate as a method of escape. Prisoners at Mill Prison executed nine successful escapes via tunnels compared to thirty attempted escapes (including tunnels discovered by guards). Those who failed in their efforts to dig a tunnel successfully faced forty days confinement in the Black Hole on half rations. Because the efforts of the tunnelers could potentially benefit all prisoners, the inmates made special efforts to smuggle food to tunnelers who were confined. For example, when guards confined two men to the Black Hole at Mill in June of 1778, Charles Herbert noted, "we shall find means to help them, as we have done others before."[21] Even in failure, prisoners placed collective effort and responsibility at the heart of their tunneling efforts.

Despite the long odds, prisoners persisted in tunneling because, when successful, the results could be spectacular. Thirty-two of the thirty-nine prisoners who absconded from Mill via tunnels did so in the two escapes on 4 August 1777 and 28 December 1778. If the prisoners completed a tunnel and kept its existence a secret from their captors, then it was possible on a dark, stormy night for numerous prisoners to make their escape, as 108 inmates did from Mill in December of 1778.

Two prior mass escapes, one from Mill and one from Forton, reveal why prisoners persisted in tunneling despite the odds. On 18 July 1777, prisoners at Mill began to dig a sixteen-foot tunnel under the wall of the prison. By early August, they had completed the passage. During a storm on 4 August, thirty-two prisoners escaped through the tunnel. Although most of the escapees were brought back over the next few days, ten remained at large.

More than a year later, inmates at Forton Prison completed a 35-foot tunnel through which fifty-eight prisoners escaped during the night of 6 September 1778. Over the next several days, search parties captured and returned seventeen prisoners, but the rest remained at large. Such mass escapes made recapture more difficult and the risk of tunneling acceptable to many inmates.[22]

Another common means of attempting escape was for prisoners to climb the walls or fences of the prisons. During the war, there were twenty-five recorded instances of prisoners scaling the walls at Mill Prison. Seven of those attempts (28.0 percent) resulted in successful desertions. There were probably far more attempted and successful escapes from Forton because of the physical differences between the prisons. The 3.5-acre Hampshire site was enclosed by 8-foot iron pickets, spaced approximately eight inches apart. Such an obstacle would not present too much of a barrier to a determined escapee. Timothy Connor recorded in his diary on 15 February 1778: "William Humber and George Pease made their escape, over the pales and got clear off."[23]

Mill Prison, by contrast, was purpose-built early in the eighteenth century. The structure was surrounded by a double stone wall which ranged between ten and twenty feet in height and was topped with broken glass to frustrate escapes.[24] Surpassing such an obstacle was a more complicated undertaking than getting over the pales at Forton. Scaling the walls at Mill required a high degree of physical exertion and, at the higher portions of the wall, a rope or ladder. Scaling the walls required less planning than tunneling, and prisoners attempted it when they saw an opportunity. Because of its impulsive, opportunistic nature, climbing over the walls tended to involve individuals or small groups and, in Mill, were rarely successful.

A more successful method of achieving a successful escape was for prisoners to reach an accommodation with their guards. There were eleven such instances at Mill which resulted in six successful escapes (54.5 percent, totaling ten prisoners). When Ichabod Richardson escaped from Forton on 10 July 1777 by walking out the front gate, apparently unnoticed by the guard on duty, the CSHS wrote to the Admiralty, "it appeared to us to be absolutely impossible to have happened, but either through the negligence or corruption of the Centinel."[25] While the negligence of the guards is well documented, the story of their corruption reveals what a complex business escape could be.

At both Forton and Mill, the records reveal cases of prisoners bribing guards to allow them to escape. Timothy Connor reported that three of his fellow prisoners bought their way out of Forton for 1½ guineas on 3 November 1778. These escapees got off cheaply. According to William Russell, four men bought their way out of Mill for twenty guineas on 3 June 1781.[26]

Joshua Barney was twenty-two years old when he escaped from Mill Prison dressed as a British officer in 1781. Courtesy National Maritime Museum, Greenwich, England.

Not all guards who aided Americans in their escapes did so strictly for monetary gain. When twenty-two-year-old Joshua Barney planned his escape from Mill in May 1781, he deliberately struck up a friendship with a guard "who had served in the United States, and... delighted in showing civility to the American prisoners." At lunchtime on 18 May, when most of the guards were eating and the sympathetic sentinel was on duty, Barney "interchanged a wink with the soldier" and vaulted the front gate. While Barney's overtures were self-interested, the guard did not act solely out of sympathy for Americans; Barney "thrust four guineas into the hand of his *blind* friend, the soldier, as he passed him; walking boldly through the outer gate, without even being seen by his careless guardian."[27] Like the privateersmen whom they guarded, the jailers at Forton and Mill combined sympathies with pecuniary interests when possible.

Occasionally, prisoners combined their financial interests with those of their captors. One Forton inmate, Luke Matthewman, noted that prisoners at the Hampshire facility sometimes entered into agreements with their guards and the civilian bounty hunters to escape and "spend the night and perhaps the next day drinking, &c." before allowing themselves to be recaptured and returned to custody. According to Matthewman, the perpetrators of the fraud, the prisoner and his captors, would then divide the £5 reward. Olive Anderson has suggested that "many American breakouts were collusive shams" in which prisoners and captors split the reward. Although such a scenario is certainly plausible, there is little evidence to support the assertion that such collusion was as widespread as Anderson suggests. Indeed, John K. Alexander has noted evidence of collusion between the guards and the civilian "five pounders" which might have been more common than agreements between prisoners and either their guards or civilian bounty hunters.[28]

Successful collaboration relied on trust between individuals who were normally in an adversarial relationship. Anecdotal evidence suggests that there were far more incidents of guards betraying the confidences of the prisoners than helping them to obtain freedom. In some cases, guards solicited bribes from the inmates to assist in their escapes, then revealed the escape attempts while pocketing the money. According to William Russell, British officers were partners in the duplicity. He wrote on 12 December 1781:

> *Col. Frederick Augustus Berkly of Glocester, has given leave to his Regt. to take bribes from ye Americans for their Escape, but the Soldiers are to acquaint the Officer of the Guard, who is to be ready with men to seize us as soon as we get out of Prison. Several of our People have been taken in by the above scheme.*

Such incidents made prisoners wary in their relations with their captors. Several months before, Russell noted, "In the evening two of the Soldiers came to the Window, and told our people if they were minded to Escape they would let 10 go for 3 guineas but thinking it a plan to massacre us we only bafled with ye fellows."[29] Prisoners, faced with the loss of their money, confinement in the Black Hole, and being dropped to the bottom of the exchange list, trusted their guards at their peril.

Collusion was risky for guards as well as for their captives. Soldiers discovered aiding escapees were subject to court martial and severe punishment. On the evening of 31 January 1778, four officers and one seaman made their escape from Mill with the assistance of two soldiers. The soldiers donned civilian clothes and deserted their posts in the company of the five Americans. On 14 February, word reached the prison that the two soldiers were taken into custody, "being with liquor" in Okehampton. The soldiers, whose surnames were Donoly and Bazely, were tried before a court martial on 7 March 1778. The court sentenced Donoly to death and Bazely to seven hundred stripes for their parts in the affair. The sentences were carried out on 1 April 1778. Only two of the escapees, Captain Henry Johnston of the *Lexington* and Captain Eleazar Johnson of the *Dalton,* made it safely to France, thanks in part to the sacrifices of Donoly and Bazely, whose punishments were far more severe than those meted out to escaping prisoners.[30]

The most reliable method of escape from Mill Prison was by means of a disguise. Out of thirteen such attempts, eight were successful, resulting in the escape of eight prisoners. Unlike tunneling, use of disguise was usually the act of an individual. Like tunneling, and unlike scaling the walls, such a method usually required careful planning. For example, four prisoners (three officers and a seaman) made individual escapes from Mill in the same manner between 25 September and 13 November 1778. They completed a tunnel from the officers' prison to the guards' quarters, where they donned British uniforms and walked out of the facility. Joshua Barney made his escape in a British uniform as well.

Others adopted the uniforms of their fellow prisoners as disguises. John Kitts escaped from Mill in May of 1781 by wearing a Spanish jacket and joining a Spanish prisoner who was dispatched to collect water. Once outside, Kitts fled successfully. Previously, Captain Samuel Gerrish left Mill in the company of a group of paroled French officers dressed as one their number. Other attempts were more impetuous and opportunistic. On 6 August 1778, William Carpenter attempted to exit Mill Prison dressed in the coat and carrying the tools of a mason working in the prison. The laborer, who was enjoying his lunch, recognized his coat and thwarted Carpenter's bid for freedom. In a remarkably similar incident sixteen months later, eight men dressed as masons attempted another unlawful exit from Mill. They too failed. Successful use of disguises required planning and foresight.[31]

American prisoners at Mill and Forton employed a variety of means of escape other than tunneling, scaling the walls, corrupting the guards, and assuming disguises. They availed themselves of the opportunities presented by open windows and inattentive guards. More than once, inmates fled performing the rather onerous task of emptying the tubs from the prison latrines. Indeed, one determined Forton inmate made his escape via the privy. In one dramatic incident, thirty-five captives "broke open the gate" at Forton on the afternoon of 2 December 1777 and made a bold dash for freedom.[32] Most of these attempts were impulsive and opportunistic, and did not require careful planning.

Taken together, the range of techniques employed by the prisoners in attempting to escape is impressive. One notable characteristic all the methods share is the absence of violence. There are no recorded instances of American prisoners attempting to break out of captivity or take over their prisons by means which would deliberately injure their captors. They probably concluded that violence would be futile in prisons guarded by armed sentries and located within easy reach of large naval bases. The range of techniques employed by the prisoners reveals that they were shrewd about assessing their options. They, no doubt, concluded that the penalties for violent resistance outweighed the benefits. One reason the inmates eschewed violence may be that it would have made life more difficult for them during the most trying period of an escape: when the prisoners were at large in the countryside. Soldiers and local people would presumably hunt armed and dangerous escapees with vigor.

Many prisoners learned that getting out of prison was far easier, however, than getting out of Britain. Charles Herbert discovered this when he attempted his escape in December 1778. Inmates who escaped the confines of Mill or Forton found themselves at large in an alien and largely hostile environment. Their immediate task was to avoid capture; prisoners were most likely to be recaptured in the hours immediately after their escapes. It was vital that they find a secure place to hide during this period, or the escapees would soon find themselves in the Black Hole. Such was the fate of two American officers who escaped from Mill in August 1780 and unwisely sought refuge in a Plymouth pub, where they were quickly recaptured (no doubt the punters in the Golden Lion appreciated their good fortune when £10 in the form of two escaped prisoners walked through the door).

Many sought to locate sympathetic Britons who would hide them until the search abated. The prisoners were knowledgeable about such people; however, locating them often proved difficult. When Captain John Kemp escaped from Mill in June 1781, he sought a "Mr. Collins" on Tin Street in Plymouth. Unfortunately, he found a different "Mr. Collins," who promptly turned Kemp over to a magistrate.[33]

Most prisoners who eluded recapture headed for London. While it may seem strange for fleeing prisoners of war to deliberately head for the enemy capital, London offered the opportunity for sailors to book passage or join the crew of a vessel bound for Europe or North America. Thus, the surest route out of Britain went through London. The 198-mile trip from Plymouth to London was costly and fraught with uncertainty. Samuel Cutler, who escaped from Mill described his odyssey in his diary. Cutler, from Newburyport, Massachusetts, and William Morris of Boston, escaped by bribing a guard at six o'clock in the evening on 26 October 1777. They hid in the house of a "friend" in Plymouth for eight days until the search for them died down. Cutler described himself as "Somewhat happy but uneasy of mind" during those anxious days in hiding. Finally, on 3 November 1777, the Americans, disguised as Quakers, caught the seven p.m. postchaise to Exeter fifty miles distant, arriving at five the next morning. An hour later they caught another stage to London. Morris and Cutler arrived in London on 5 November 1777 after two days on the road, eleven days after their escape.[34]

The route from Forton to London was more easily traversed. In the first place, Gosport lay some seventy-five miles from London, less than one third of the distance from Plymouth. Moreover, there was a fairly thorough network of assistance in the Portsmouth area to aid runaways. Caleb Foot used metaphorical language to describe the route from Forton to London:

> *At a.m. [14 October 1780] I left my country seat [Forton], in the company of Mr. Dissmore, Mr. Rice and Mr.*

"The Gulf of Despair." Portsmouth Harbour viewed from Gosport. As in Plymouth, American prisoners were held first on prison hulks in Portsmouth Harbour before being committed to Forton Prison, which was located in Gosport, Hampshire. Many escaping prisoners sought to cross the harbor to solicit aid and transportation in Portsmouth. Courtesy National Maritime Museum, Greenwich, England.

> *Atwood. We fled from the Valley of Destruction [Forton] to the City of Refuge [Gosport], where we spent but little time, and then we crossed the Gulf of Despair [Portsmouth Harbour] and safely arrived in the Promised Land [Portsmouth], where we dined and spent the remainder of the day very agreeably, to think that we had passed thus far on our pilgrimage. On the 15th, at five o'clock in the morning, Mr. Dissmore took stage with me, and we arrived at the New Jerusalem [London].*[35]

Foot reached London about thirty-six hours after his escape, compared to the eleven days required by Cutler and Morris.

Caleb Foot appreciated that his journey and its challenges did not end in London. He wrote from the metropolis: "I am through the blessing of God and good friends, arrived thus far, without much difficulty. I arrived at this port ... where I was received very kindly and am in hopes of leaving this soon."[36] Having reached London, most of the escapees sought to contact sympathetic Britons or expatriate Americans who could provide them with assistance in leaving the country. Raising funds was essential. Samuel Cutler estimated that his and Morris' escapes cost £38.10 each.[37] The escapees were knowledgeable about where they could find such aid. George Thompson, a Swedish-born privateersman from Newburyport, left explicit instructions which he had written in his diary in Forton before he made his own escape:

> *on Your arrival in London Reapir to the Royall Exchange which is not far from St Pauls when you go on the Exchange it Must be between the hour of 12 and 2 o Clok wher You will find an American you May with Safty Let them Know that*

> *you are an American but dont to Soon Discover to them that You have made Your Escape from fortune prison You will be Discovering them Soon Learn whether they are in the Cauces of america or not if they are You will Recive assistans from them to Carry you to France or Holland.*

Alternatively, he noted that assistance could be found at the Caroline Coffee House.

Despite access to such information, London was a dangerous place for escaped American sailors. More than one escapee shared the fate of Edward Manning, who escaped from Forton in March 1778, made it to the capital, "and just as he got into the bounds of London the Press-gang came across and pressed him and carried him on board of the *Nightingale*."[38] For those who avoided the press and the snare of poverty, the next destination on their odyssey was Europe. Most prisoners sought to reach France, where they could join the crew of an American privateer and receive monetary support from the American commissioners in Paris. After 1778, when France entered the war as an ally of the United States, prisoners usually traveled to France via Holland or Belgium.[39]

Not all escaped prisoners headed toward a city which was dangerous, expensive, and (especially from Mill) distant. Many sought to escape from Britain by joining the crews of ships bound for America or continental Europe. When the vessels put in at their port of call, the fugitives jumped ship. If they were in a European port the escapees headed for France or the Netherlands. If they landed in mainland North America, prisoners headed for home. Eleven prisoners who escaped from Mill with Charles Herbert on 28 December 1778 made their way to Cawsand in Devon and joined the crew of the armed lugger *Dolphin.* According to the runaways, when the vessel was well into the Atlantic, "[we] armed ourselves with Fusils & Cutlasses, & went into the Cabbin and summoned the Officers to surrender themselves, which they immediately complied with without making any Resistance. We then hoisted out the Boat, gave her to the Officers, & desired them to repair on board an English Brigantine, then in sight.... We then altered Course & stood for the Island of Martinique," which they reached on 5 February 1779.

Unimpressed by the swashbuckling escape, French authorities in Martinique jailed the seamen in the belief that they were British.

Others were more direct. Jeremiah Pierce of East Greenwich, Rhode Island, escaped with four other men from Forton in September 1778. The men spent three days on the run in the Hampshire and Sussex countryside. Frightened and hungry, they stole a rowboat and, after forty-four hours of rowing, arrived in France.[40]

Jeremiah Pierce and his friends need not have suffered so. There were more direct ways out of England. At the end of his diary, George Thompson left detailed instructions of two possible routes from Forton to France. The first route outlined by Thompson ran from Gosport north to Fareham, east to Arundel via Havant and Chichester, and south from Arundel to Littlehampton. Whoever provided him with the information noted that since the people of Fareham were not very friendly, it might be advisable to walk to Havant to get the stage to Littlehampton. At Littlehampton, escaped prisoners were to seek Mathias Cole "who is sometimes Implyed to Carry passengers to [Le Havre]... his price is about 3 Guines he is ready to go to [Le Havre] any day or Every day in the week he Commonly Runs from Little hampton in about sixteen hours Exceedingly fond Such Jobbs." As an alternative, Thompson noted another route westward to Poole which could be reached via Titchfield, Southampton, and Ringwood (or Lymington). In Poole, the escapees were to seek the assistance of a Mr. Howell. These were traditional routes used by smugglers on the south coast.

It is unknown how many prisoners who escaped from Forton eschewed going to London in favor of the alternative or other long-forgotten routes. Possibly seven mariners who had fled from Forton and were recaptured in

Chichester in August 1781 were following Thompson's route. It is likely that there were people other than Mathias Cole on England's south coast who were willing to help escaping American prisoners for a price. Indeed, George Thompson noted that if Cole was unavailable, then escapees should find a Mrs. Sisard at a pub called the Bear, or head for Shoreham to the east "where are Many fishen boates and others who Keep Vessels along that Shore" who, presumably, would provide a similar service at similar prices. His notes reveal the truth at the heart of the escape process: assistance and support was necessary for a prisoner to successfully escape.

Imprisonment taught the prisoners the harsh lesson that escape was normally impossible without help from within and without. Every successful escape was the result of collective action. Every single breakout relied on the cooperation and aid of many individuals. Joshua Barney's daughter described the help given her father when he made his escape from Mill. After the guard signaled him to make his exit at lunchtime, Barney:

> *retired to his room; equipped himself in the undress uniform of an English officer... and then sought his confidential friends whose assistance would be indispensible to his success: some of these undertook to keep the sentinels, at certain posts, in parley; and one of them (a lad of such slender dimensions that he could creep through his window bars at pleasyre,) in order that his absence might be the longer unsuspected, was, after answering to his own name at roll-call in his room, to crawl through the window and answer for Barney in the yard: — another of his friends, a tall, stout man, had already taken his station near the gate. Thus prepared at all points, our bold adventurer descended into the court; he reached the gate without challenge; interchanged a wink with the soldier, which satisfied him that now was the accepted time; and springing, with the agility of a cat upon the shoulders of his tall fellow-prisoner, who stood ready for the purpose, was in moment over the barrier, and safe upon his feet... and walking boldly through the outer gate... was in ten minutes safe, in the house of a well known friend of the American cause in Plymouth!*[41]

Apart from the guard, whose friendship he had cultivated and palm he had greased, Barney relied on the direct assistance of his fellow inmates to distract the other guards, cover his escape, and help him scale the wall. Once outside the prison he relied on the aid of a civilian in Plymouth to hide him from the five pounders.

Joshua Barney's experience reveals the importance of gaining help from fellow prisoners. The most common form of assistance was to hide an escape from the guards by ensuring that the sentries enumerated the correct number of prisoners when they counted the inmates. When David Welsh, a lieutenant from the *Lexington,* escaped through the connivance of one of the guards in May 1778, Charles Herbert noted: "At night when the guard came to turn them into prison, it was so contrived that a small boy should go in first, and then slip out of a window and be counted twice; so that they had their number and did not miss him." The scheme worked, and when the prisoners repeated it successfully the next day Jonathan Haskins gloated, "Mr. Welch not missed yet as we have fought the cocke so well."

The prisoners intended the deception not only to provide Welsh with more time to escape, but to protect the sentry who had assisted him. According to Charles Herbert, "This contrivance was to screen the guard that was on duty when [Welsh] went out, fearing lest if it was found out, they would mistrust which way he escaped, and thus the sentry be exposed." In December 1778, after another escape, the prisoners in his mess continued to draw the escapee's provisions (in breach of prison regulations) "that he may have a better chance to get off, and to screen the militia on guard at the time."[42] By their actions, the majority of prisoners provided assistance to their fellows when they escaped, either by participating in the actual desertion, or by concealing the unlawful departure for as long as possible.

Once outside Mill and Forton, escapees required further help. Most needed a place to hide, as well as clothes and money. One important reason for the wide discrepancy in the escape rates for the two facilities was the presence of a sophisticated network to help escapees in the neighborhood of the Hampshire prison. The network included a Mr. Duckett and Mr. Thomas Francis of Gosport, both of whom hid and transported escapees, as well as various individuals whose names are unknown. Sheldon S. Cohen has suggested that Sir John Carter, a wealthy local brewer and former mayor of Portsmouth, may have been involved in these efforts. At the center of this organization was the Reverend Thomas Wren, a Presbyterian minister in Portsmouth. Beginning in 1777, Wren provided comfort and support for the inmates at Forton. He also distributed the proceeds from the subscription drive to the prisoners each week.

As early as January 1778, an American agent reported that Wren provided assistance of a more subversive nature. Major John Thornton went to England on behalf of the American commissioners in Paris to investigate treatment of the prisoners and reported, "a Presbiterian Clergyman at Portsmouth has been of the greatest service, and has behaved with great Humanity to the American prisoners, providing some with the means of making their Escapes..." Prisoners attested to Wren's valuable assistance. When George Thompson escaped from Forton in November 1779, Wren found him a place to hide, helped him secure passage on a ship bound for North America and provided him with new warm clothing for his winter journey across the North Atlantic. According to Nathaniel Fanning, Wren's church "was an asylum for the Americans who made their escape from confinement; and every one of these, if they could once reach his abode was sure to find a hiding place, a change of wearing apparel, and money, if they were in want of it, and a safe conveyance to London."[43]

Although individuals in Plymouth provided aid to runaways, they did not do so in as organized a fashion as their counterparts in Hampshire. Thomas Wren's opposite number in Plymouth was Robert Heath, the deacon of the Methodist Plymouth Tabernacle church. Like Wren, Heath provided the inmates with comfort and distributed the proceeds from the subscription drives. Unlike Wren, there is no evidence directly linking Heath with overtly aiding escapees. He may have been more discrete than his counterpart in Portsmouth. As one escaped American wrote (perhaps with reference to the deacon), "the friend that we have at Plymouth is obliged to act with the greatest caution." Escaped American mariners did find some help in Plymouth, as such oblique references in their records reveal.[44]

Runaway prisoners also required assistance if they reached London. A network of expatriate Americans and British sympathizers provided lodging and money for escapees. At the center of this community was a Marylander named Thomas Digges. Captain Gustavus Conyngham met Digges after his escape from Mill Prison in November 1779. He wrote of him, "At London we met with our good Friend Mr. Digges, who did everything in his power to serve me and all his countrymen that chance to fall in his way." In 1782, Digges estimated that he helped more than 160 Americans make their escape by providing them with shelter and funds while they were in London. Other Londoners also provided assistance. A Welsh doctor named Griffith Williams hid escapees in his home near the docks. Another Londoner, John Blyth hid "As many as forty escapees at his own house at his own expense." An expatriate Nantucket whaling captain, Tristram Barnard, also aided escaping Americans in their quest for freedom.[45]

What motivated individuals outside of the prisons to assist escaping Americans? The

The *Serapis* and *Bonhomme Richard,* 23 September 1997. Most escaped American sailors sought to join the crews of American vessels when they arrived in France. A significant number of John Paul Jones' crew when the *Bonhomme Richard* (background) fought the *Serapis* (foreground) were former prisoners. This painting was done by Benjamin Church in 1798. Courtesy National Maritime Museum, Greenwich, England.

importance of expatriate Americans among those providing aid is perhaps the easiest to explain. As a New England sailor himself, it is not difficult to fathom Tristram Barnard's sympathy for the runaways. The prominence of religious dissenters such as Thomas Wren, Robert Heath, and the Reverend Thomas Denward of Dover, who also assisted escaping Americans, can perhaps be explained by the sympathy they may have felt for the prisoners, most of whom came from the New England dissenting tradition.

But what of individuals, largely forgotten, like John Blyth or Griffith Williams who provided assistance despite having no obvious cultural or religious connection with the inmates? One of them, Philip Hancock, left an explanation of his actions. He assisted David Welsh, the lieutenant from the *Lexington* who made his escape in May 1778. Hancock hid Welsh in Plymouth Dock (a community adjacent to Plymouth), then, "By the advice of many friends to the Cause" resolved to accompany him to France in order to speak to the American commissioners about how he could best help the prisoners and the rebel cause. En route from Amsterdam to Paris, Welsh apparently robbed Hancock and left him destitute in Brussels. By necessity, Hancock wrote to the American commissioners in Paris seeking assistance and explaining his situation: "Being Convinced of the Rectude of the Conduct of the Ammericans in Revfuten the Inequetas Accounts of the British Ministrey [I] was willing to Contrubet My Mite According to my Privet Station in Life to Promote the glourse Cause..."[46] For Philip Hancock, and doubtless others like him, there was a direct correlation between assisting the American prisoners and supporting the cause for which they were imprisoned.

American escapes do not represent the triumph of Yankee ingenuity over lax British tyranny. The story is more complicated and interesting than that. Without the help of such individuals as Philip Hancock, Thomas Wren, Robert Heath, John Blyth, Thomas Digges, and Tristram Barnard, and, of course, their fellow prisoners, it would have been extremely difficult for captives to escape successfully from Forton and Mill prisons. Successful escapes, regardless of the method employed, were the product of collective action, and mutual support of prisoners and their advocates. Each escape represented a success for supporters of the American Revolution whether they were captured seamen, British civilians, American expatriates, or even British soldiers or militiamen. By their efforts to escape, American seamen realized the close link between personal freedom and collective action.

Methods of Escape from Mill Prison, 1777–1782

This table considers the methods employed by prisoners at Mill Prison to make their escapes. The incidents column includes successful escapes, attempted escapes and, in the case of tunneling, foiled plots (tunnels discovered before an escape could be attempted). In some cases where more than one method of escape was used (such as Joshua Barney's escape of 18 May 1781 in which *three* methods were employed) they have been recorded separately. This has slightly increased the number of prisoners who escaped and got away clear due to double counting. For the purposes of this table an escape was counted as successful if the prisoners exited Mill Prison; however, the "away clear" column denotes those who not only escaped but were not recaptured.

Method	Incidents	Success	Success Rate %	Number of Prisoners Escaped	Number of Prisoners Away Clear	% of Escapees Away Clear
Tunneling	39	9	23.0	160	39	24.3
Unknown	17	11	65.7	22	21	95.4
Other	21	9	42.8	19	13	68.4
Collusion with Guards	11	6	54.5	21	10	47.6
Disguise	13	8	61.5	18	8	44.4
Scaled Walls	25	7	28.0	24	7	29.2
TOTALS	126	50	39.6	264	98	37.1

Sources: This table was compiled by collating the information from the prison diaries cited in the notes.

NOTES

1. Charles Herbert, *A Relic of the Revolution, Containing a Full and Particular Account of the Sufferings and Privations of the American Prisoners Captured on the High Seas and Carried into Plymouth England, during the Revolution of 1776* (Boston: Charles H. Peirce, 1847) 204–207. Marion Coan, ed, “A Revolutionary Prison Diary: The Journal of Dr. Jonathan Haskins,” *New England Quarterly*, 17 (1944), 290–309, 424–442; 438–439; “Joseph Barker et al to Benjamin Franklin, February 16, 1779,” in Leonard W. Labaree, Whitfield J. Bell, and W. B. Wilcox, eds., *The Papers of Benjamin Franklin* [hereafter *PBF*], 32 vols. to date (New Haven: Yale University Press, 1959), 28:553–554. John K. Alexander has identified cases of plagiarism among some of the prison diaries, including those of Herbert and Haskins. “‘American Privateersmen in Mill Prison during 1777–1782,’ An Evaluation,” *Essex Institute Historical Collections* [hereafter *EIHC*], 102 (1966), 318–340; “Jonathan Haskins’ Mill Prison ‘Diary’: Can it be Accepted at Face Value,” *New England Quarterly*, 40 (1967), 561–564.
2. Herbert, *Relic of the Revolution*, 204–207, 208, 210.
3. Larry G. Bowman, *Captive Americans: Prisoners during the American Revolution* (Athens, OH: Ohio University Press, 1976), 56–57, 93; William R. Lindsey, “Treatment of American Prisoners of War During the Revolution,” *The Emporia State Research Studies*, 22 (1973), 5–32, especially 27. Two American scholars who have given British sources careful consideration are John K. Alexander and Sheldon S. Cohen. John K. Alexander, “American Privateersmen in Mill Prison During 1777–1782: An Evaluation,” *EIHC*, 102 (1966), 318–340 and “Forton Prison During the American Revolution: A Case Study of British Prisoner of War Policy and the American Response to that Policy,” *EIHC*, 103 (1967), 365–389. Sheldon S. Cohen’s *Yankee Sailors in British Gaols: Prisoner of War at Forton and Mill, 1777–1783* (Newark, DE: University of Delaware Press, 1995) stresses Yankee “ingenuity and courage” (77) as the key to prison escapes.
4. Olive Anderson, “American Escapes from British Naval Prisons During the War of Independence,” *Mariner’s Mirror*, 41 (1955), 238–240; Olive Anderson, “The Treatment of Prisoners of War in Britain During the American War of Independence,” *Bulletin of the Institute of Historical Research*, 28 (1955), 63–83; Eunice Turner, “American Prisoners of War in Britain, 1777–1783,” *Mariner’s Mirror*, 45 (1959), 200–206; Francis Abell, *Prisoners of War in Britain, 1750–1815* (London: Oxford University Press, 1914).
5. Mill held 1,296 prisoners, compared to Forton’s 1,200. Cohen, *Yankee Sailors in British Gaols*, 47; Jesse Lemisch, “Listening to the Inarticulate: William Widger’s Dream and the Loyalties of American Revolutionary Seamen in British Prisons,” *Journal of Social History*, 3 (1969–1970), 1–29, 7 n.15.
6. Gardner Weld Allen, *A Naval History of the Revolution*, 2 volumes (Boston: Houghton Mifflin, 1913), 2:715– 717; Nathan Miller, *Sea of Glory: A Naval History of the American Revolution* (Annapolis: Naval Institute Press, 1972, reprinted 1992), chapter 16; William James Morgan, “American Privateering in America’s War of Independence, 1775–1783,” *American Neptune*, 36 (1976), 79–87; Philip Chadwick Foster Smith, “The Privateering Impulse in the American Revolution,” *EIHC*, 119 (1983), 49–62.
7. Fifty-eight point five percent (644) were from Massachusetts, and thirty-one percent (342) were from Essex County alone. While the profiles of the populations of the two facilities are similar, they are not exact. Sheldon S. Cohen has noted that Mill seemed to have more New England prisoners than Forton. Cohen, *Yankee Sailors in British Gaols*, 47. The figures in this paragraph are based on Francis D. Cogliano and Young-Mi S. Cogliano, “A Register of Americans Imprisoned in the Old Mill Prison, Plymouth, England, 1777–1782,” Peabody Essex Museum, Salem, Massachusetts. This register of 1,101 names (84.9 percent of the total number of American prisoners held at Mill Prison) was compiled from information in *Boston Gazette*, 24 June, 1 July, 8 July 1782; Jeremiah Colburn, “A List of Americans Committed to Old Mill Prison Since the American War,” *New England Historical and Genealogical Register* [hereafter *NEHGR*], 9 (1865), 74–75, 136–141, 209–213; Herbert, *Relic of the Revolution*, 243–258; William Russell, Privateers’ Men in the War of the Revolution: A Journal, 9 vols., manuscript in the Peabody Essex Museum.
8. Cogliano and Cogliano “Register of Americans,” 27; Betsy Knight, “Prisoner Exchange and Parole in the American Revolution,” *William and Mary Quarterly*, 48 (1991), 201–222; Cohen, *Yankee Sailors in British Gaols*, 120–125, 129–132, 156–160; Lemisch, “Listening to the Inarticulate,” 17–18; Francis D. Cogliano “We All Hoisted the American Flag: National Identity Among American Prisoners in Britain During the American Revolution,” *Journal of American Studies*, 32 (1998), 19–37.
9. Cohen, *Yankee Sailors in British Gaols*, 181.
10. This figure, derived from comparing the extant diaries of prisoners against Admiralty records, is based on 115 successful escapes out of 1,296 inmates. Although comparable, is slightly more precise than the eight percent (eighty-eight of 1,101 prison-

ers) cited in Cogliano and Cogliano "Register of Americans," 27. The number of prisoners who escaped from Mill (115) was less than that who enlisted in the British service (173, 15.7 percent, Cogliano and Cogliano, "Register of Americans," 27.) Jesse Lemisch claimed that men escaped "perhaps three or four times as often" as they defected. Lemisch, "Listening to the Inarticulate," 17 If we consider only those who successfully escaped, then this is not true for Mill Prison. Alexander, "Forton Prison," 382–383.

11. Philip Stephens to the Commissioners for Sick and Hurt Seamen (hereafter CSHS), 25 June 1777, Adm/M/404 National Maritime Museum, Greenwich, England.
12. CSHS to the Lords of the Admiralty, 12 November 1777, Adm/11/140–141, Public Record Office, [hereafter PRO], Kew, England.
13. Herbert, *Relic of the Revolution*, 136; Haskins, "Diary," 425; Russell, Journal, 2:29–30, 3:47, 4:1, 25; John Claypoole, "Memorandum Book," Charles Francis Jenkins, ed., *Pennsylvania Magazine of History and Biography*, 16 (1892), 178–190; 179, 188.
14. Nathaniel Fanning, *Narrative of the Adventures of an American Navy Officer* (New York: private printing, 1806; reprint New York: De Vinne Press, 1912), 10; Haskins, "Diary," 299.
15. Herbert, *Relic of the Revolution*, 204.
16. Caleb Foot, "Reminiscences of the Revolution: Prison Letters and Sea Journal," *EIHC*, 26 (1893), 90–122; 100 (quotation). Such sentiments fly in the face of Olive Anderson's assertion that prisoners, "were little affected by either close confinement on half rations or the loss of a turn to be exchanged." Anderson, "American Escapes from British Naval Prisons," 238.
17. Sheldon S. Cohen, "The Preachers and the Prisoners," *EIHC*, 126 (1990), 1–26, 6; John Sainsbury, "The Pro-Americans of London, 1769 to 1782," *William and Mary Quarterly*, 3d Ser., 35 (1978), 423–454, 443; *Annual Register... for the Year 1778* (London, 1779), 79; *Gentleman's Magazine*, 47 (1777) 607; 48 (1778), 43. Figures based on Cogliano and Cogliano, "Register of Americans," 4–21, 27. This source reveals that twenty-two out of forty-five officers successfully escaped, compared to sixty-six of 1,056 common sailors.
18. Russell, Journal, 1:30.
19. Fanning, *Narrative*, 13–14. A similar account was published in the *Hampshire Chronicle* on 14 September 1778.
20. Herbert, *Relic of the Revolution*, 71–72; Haskins, "Diary," 301; Russell, Journal, 1:23; Timothy Connor, "A Yankee Privateersman in Prison in England, 1777–1779," *NEHGR*, 30 (1876), 174–177, 343–352; 31 (1877), 18–20, 212–213, 284–288; 32 (1878), 70–73, 165–168, 280–286; 31:287–288; Russell, Journal, 1:30.
21. Herbert, *Relic of the Revolution*, 132.
22. Herbert, *Relic of the Revolution*, 52, 54–55; Haskins, "Diary," 299–300; Samuel Cutler, "Prison Ships and the 'Old Mill Prison,' Plymouth, England, 1777," *NEHGR*, 32 (1878), 42–44, 184–188, 305–308, 395–398; quotation 306–307; Connor, "Yankee Privateersman," 32:73, 165; CSHS to the Admiralty, 8, 13, and 22 August, 1777, Adm 98/11/124–126, PRO.
23. Connor, "Yankee Privateersman," 30:348. After eleven prisoners escaped over the walls from Forton in June 1777, the CSHS advised strengthening the walls at the site. Apparently this advice was not taken. CSHS to the Admiralty, 30 June 1777, Adm/98/ 116–118, PRO.
24. Cohen, *Yankee Sailors in British Gaols*, 33–39; Andrew Sherburne, *Memoirs of Andrew Sherburne: A Pensioner of the Navy of the Revolution* (Providence, RI: H. H. Brown, 1831), 84–85.
25. CSHS to the Admiralty, 14 July 1777, Adm/98/ 11/119–120, PRO.
26. Connor, "Yankee Privateersman," 32:281; Russell, Journal, 2:46.
27. Mary Barney, ed., *A Biographical Memoir of the Late Commodore Joshua Barney* (Boston: Gray and Bowen, 1832), 89.
28. Luke Matthewman, "Narrative of Lieut. Luke Matthewman of the Revolutionary Navy," *Magazine of American History*, 2 (1878), 175–185, quotation, 182. Anderson, "American Escapes from British Naval Prisons," 239; Alexander, "Forton Prison," 382 n.91.
29. Russell, Journal, 4:9; 2:32; Herbert, *Relic of the Revolution*, 150, 185.
30. When handbills were distributed after the trial condemning the two men for desertion and aiding rebels, a crowd of sailors from the Royal Navy and dockworkers burned them. Haskins, "Diary," 304–306; Herbert, *Relic of the Revolution*, 94, 97, 102–103, 107, 109; CSHS to the Admiralty, 4 February 1778, Adm/98/11/167, PRO; CSHS to the Admiralty, 23 February 1778, Adm/98/11/172, PRO; "Henry Johnson to the American Commissioners, February 2, 1778," *PBF*, 25:571; "Francis Coffyn to the American Commissioners, March 2, 1778" *PBF*, 26:13; Connor, "Yankee Privateersman," 301.
31. Herbert, *Relic of the Revolution*, 152, 186–187, Russell, Journal, 1:4, 43, 2:42; Haskins, "Diary," 429.
32. Connor, "Yankee Privateersman," 30:347. Fourteen of the inmates escaped successfully on 2 December 1777. Russell, Journal, 2:23, 3:26, 4:22; Herbert, *Relic of the Revolution*, 41, 128, 141, 153; Haskins, "Diary," 297, 427; Cutler, "Prison Ships and the 'Old Mill Prison,'" 187; Connor, "Yankee Privateersman," 31:19.
33. Russell, Journal, 1:17, 3:1.
34. Cutler, "Prison Ships and the 'Old Mill Prison,'" 397–398; Herbert, *Relic of the Revolution*, 70.

35. Foot, "Reminiscences of the Revolution: Prison Letters and Sea Journal," 111.
36. *Ibid*, 101.
37. Cutler, "Prison Ships and the 'Old Mill Prison,'" 397–398. One reason for Cutler and Morris' high expenses was because they spent their time in London more as tourists than fugitives. They visited St. Paul's Cathedral and the capital's famous coffee houses, dined at the Painter's Hall (Morris was Benjamin West's nephew), and went to a celebration for the Lord Mayor of London.
38. George Thompson, "Diary of George Thompson of Newburyport, Kept at Forton Prison, England, 1777–1781," *EIHC*, 76 (1940), 221–242, quotation 241–242; Connor, "Yankee Privateersman," 30:349, 351.
39. Samuel Cutler and William Morris journeyed to Paris via Harwich, Rotterdam, Antwerp and Brussels. They arrived in Paris on 26 November 1777, exactly one month after their escape. Cutler, "Prison Ships and the 'Old Mill Prison,'" 398. Another Mill escapee, David Welsh, traveled to Paris via Amsterdam and Brussels. "Philip Hancock to the American Commissioners, September 2, 1778," *PBF*, 27:339–341; "Gustavus Conyngham to Benjamin Franklin, November 18, 1779," in Robert W. Neeser, ed., *Letters and Papers Relating to the Cruises of Gustavus Conyngham, a Captain of the Continental Navy: 1777–1779* (New York: De Vinne Press, 1915), 190; Foot, "Reminiscences of the Revolution: Prison Letters and Sea Journal," 111; and Fanning, *Narrative*, 10.
40. "John Porter to Benjamin Franklin, June 6, 1777," *PBF*, 24:130–132; "John Johnstone to Benjamin Franklin, March 27, 1778," *PBF*, 26:179; "John Watson and John Swain to Benjamin Franklin and Arthur Lee, January 17, 1779," *PBF*, 28:388–389; "Joseph Barker et. al. to Benjamin Franklin, February 16, 1779," *PBF*, 28:553–554; "Jeremiah Pierce to Benjamin Franklin, June 8, 1779," *PBF*, 29:647; Thompson, "Diary," 233–242.
41. Barney, *Biographical Memoir*, 89.
42. Herbert, *Relic of the Revolution*, 123, 124, 193; Haskins, "Diary," 308.
43. John Thornton, "Memorandum to the American Commissioners, January 5th and 8th, 1778," *PBF*, 25:418–419; Thompson, "Diary," 232–233; Fanning, *Narrative*, 11; Cohen, *Yankee Sailors in British Gaols*, 79, 111; Sheldon S. Cohen, "Thomas Wren: Ministering Angel of Forton Prison," *Pennsylvania Magazine of History and Biography*, 103 (1979), 279–301; Sheldon S. Cohen, "The Preachers and the Prisoners," *EIHC*, 126 (1990), 1–26.
44. Cohen, "The Preachers and the Prisoners," and *Yankee Sailors in British Gaols*, 78–83. Heath did provide Samuel Cutler with £20. Although he may well have known that Cutler would use the money to escape, there is no direct evidence for this. Cutler, "Prison Ships and the 'Old Mill Prison,'" 397.
45. "Gustavus Conyngham to Benjamin Franklin, November 18, 1779," in *Letters and Papers... of Gustavus Conyngham*, 190; William Bell Clark, "In Defense of Thomas Digges," *Pennsylvania Magazine of History and Biography*, 77 (1953), 381–438, 428. This estimate is probably high since, by 1782, Digges was fending off charges from Benjamin Franklin that he had embezzled money from the prisoners. Cohen, *Yankee Sailors in British Gaols*, 110; "John Channing to Benjamin Franklin, August 24, 1778," "Tristram Barnard to American Commissioners, October 9, 1778," *PBF*, 27:295, 526–527; "Shubael Gardner to American Commissioners, December 22, 1778," *PBF*, 28:260–261.
46. "Philip Hancock to the American Commissioners, September 2, 1778," *PBF*, 27:339–341. The commissioners sent Hancock enough money to return home.

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NAVY FLOGGING:

CAPTAIN SAMUEL FRANCIS DU PONT AND TRADITION

JANE LITTEN

Navy officers in the mid-nineteenth century supported the practice of flogging in the US Navy at the same time as evangelical reformers rallied public pressure for its abolition. Samuel Francis Du Pont, a traditionalist, was among the dominant group of navy officers who considered the legal and customary practice of flogging essential. He contended that flogging was the sheet anchor of naval discipline, and that its abolition would lead to utter subversion of order and discipline on naval vessels at sea.

In 1845, Robert F. Stockton chose Du Pont to serve as his flag captain, to run the frigate *Congress*, as it carried Stockton to become commodore of the Pacific Squadron. James Valle, historian of flogging, named Du Pont and Stockton as two of the "prominent students of disciplinary theory and practice" in the navy. Stockton, unlike Du Pont, was a radical naval reformer who advocated outlawing flogging. During this eight month cruise, Du Pont refined his system of gradually escalating punishments while attempting to avoid confrontation over flogging with his commodore. The dynamics of discipline are revealed through Du Pont's frequent comments on his progress in effecting control over officers and crew and the pressures on him in making decisions. Du Pont, as a navy officer, and Stockton, as a senator, would both become active in congressional contests over the abolition of flogging which took place four and six years later. Stockton's personal theories and philosophy of naval discipline, Valle says, were "impossible to reconstruct… except in his unreflective senate speeches."[1]

Historians have created a foundation for the study of US Navy flogging and its reform. Harold D. Langley's *Social Reform in the United States Navy, 1798–1862* is the primary account of the campaign against navy flogging among nineteenth century social reformers intent on improving the life of the common sailor. James E. Valle in *Rocks & Shoals: Order and Discipline in the Old Navy, 1800–1861* wrote of the practical application of Navy Regulations as displayed in court martial cases. Myra C. Glenn in *Campaigns Against Corporal Punishment: Prisoners, Sailors, Women, and Children in Antebellum America,* following Michel Foucault, examined the underlying institutional concerns that brought reformers to seek change.

Du Pont believed in the efficacy of flogging as an instrument of discipline, a view he shared with almost all officers trained within the enclosed navy system. He differed from other officers in that he also articulated his procedures for managing punishment in a manner he considered efficient, reasonable and effective. The fullness of his report was encouraged by his wife Sophie, who being aware of possible friction with Stockton, wished her husband to

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Samuel Francis Du Pont, from a daguerreotype taken before he sailed as flag captain of the USS *Congress*. Du Pont had a long, distinguished naval career from his appointment by President Madison in 1815 into the Civil War. Courtesy of the Hagley Museum and Library.

protect his position by writing her about "every little circumstance that occurs, influencing your lot in any way."[2]

Du Pont and Stockton came from aristocratic families with social and political connections who facilitated appointment and advancement in the navy. Du Pont was named a midshipman at the age of twelve and entered the navy under the propitious sponsorship of Thomas Jefferson and President James Madison. His grandfather, Pierre Samuel Du Pont de Nemours, a French statesman and author, moved his family to America upon Napoleon's return from Elba. His father, Victor Marie Du Pont, had been French consul in South Carolina prior to their immigration, and his mother, Gabrielle Josephine de la Fite de Pelleport, was the daughter of a marquis. Stockton was a fifth generation American whose grandfather Richard was a lawyer, a large New Jersey landholder, a member of the Continental Congress, and a signer of the Declaration of Independence. His father, also Richard, was a lawyer, a gentleman farmer, and a senator. Robert Stockton entered naval service just prior to the War of 1812 as aide to Commodore John Rodgers and distinguished himself in the defense of Baltimore. In 1818, when Stockton was first lieutenant on the sloop *Erie,* Du Pont served under him as a fifteen-year-old midshipman. By the time of the *Congress* cruise, Du Pont was a commander and Stockton a captain, then the highest rank in the US Navy.[3]

Both men were intensely concerned with politics. Du Pont, a Whig, was committed primarily on measures relating to the navy. Stockton's political loyalties were erratic. His interests were broad. He campaigned vigorously for democratic candidate James K. Polk for president and was enthusiastic about Polk's expansionist aims. Du Pont and Stockton were different in manner and personality. Du Pont was even-tempered with an easy sociability. Stockton was less approachable. On the voyage, his moods fluctuated between exuberance and periods of depression when he withdrew to his cabin. Du Pont felt that this change from a dashing, dueling young officer to an anxious one was the result of the explosion of a big gun on the steam warship *Princeton.* Stockton had overseen design of the *Princeton* and the gun *Peacemaker*, and was injured when the gun exploded, killing Secretary of State Abel P. Upshur, Secretary of the Navy Thomas W. Gilmer, and four others.[4]

Contrasting beliefs about the nature of man and society were at the core of their differences over discipline and punishment. Du Pont held a conservative view, an orthodox Christian sense that man's nature was sinful, a view which he applied selectively. Corporal punishment was essential to preserve order among crew members who were "vicious and irreclaimable men." Stockton, like many liberal Protestants, believed that man had an innate capacity for good and could be influenced to it by moral persuasion. His beliefs were based on patriotic fervor about a seaman's "nobility" as an American citizen. An appeal to a seaman's enthusiasm for "his flag and his Country" would be more effective than "dread of degrading punishment" that destroyed his pride. Stockton's approach was close to that of the American Seamen's Friend Society, whose branches and women's auxiliaries pressed for reform, interweaving religious and political arguments. The Society emphasized that in a democratic country, punishment should reform individuals by disciplining the mind, not punishing the body.[5]

Robert F. Stockton was a navy innovator. He experimented with steam driven vessels and gunnery to modernize the Navy. As commodore of the Pacific Squadron, he led land battles to win California in 1846–1847. Derby & Jackson stipple engraving by H. B. Hall, from a painting on ivory by Newton. Courtesy of the Franklin D. Roosevelt Library.

The US Navy was governed at mid-century by an autocratic "Act for the better government of the navy of the United States" adopted by Congress 23 April 1800, when the navy was formally established. These regulations buttressed a hierarchal structure led by an elite officer corps commanding a submissive crew. British naval codes of the seventeenth and eighteenth centuries, from which the American articles derived, were what historian of British naval discipline John D. Byrn Jr. called a "system of selective terror." The purpose of punishment was to present an example, impress others with the need to obey the rules, and reinforce the authority of officers. The US Navy justice system was separate from the judicial system of courts and appeal courts handling cases of American civilians. The purpose of naval discipline was to assure naval order, and placed no emphasis on the defense of individual rights. Its code's variation from civilian law was justified by the need to instill fear in order to obtain a quick response to sudden and extreme danger that could overwhelm a ship at sea, and to control men in war.[6]

The type of punishment received corresponded to position in the hierarchy. Officers and warrant officers were punished by fines, suspension from duty, or by court martial decisions. Physical punishment was confined to the lower ratings: noncommissioned officers, seamen, ordinary seamen, landsmen, and boys. The commanding officer of a vessel was authorized to order a punishment of up to twelve lashes. He could flog for offenses relating to inadequate labor, tardiness, sleeping on watch, swearing, drunkenness, slovenly habits, and actions which would be criminal on shore, such as assault, theft, and fraud. If an offense required greater punishment, the man would be tried by court martial, which had power to order a flogging of up to one hundred lashes, or the death penalty, subject to review of the President. Corporal punishment had been abolished in the US Army and militia in 1812, and public agitation over flogging during the 1830s and 1840s caused the navy's civilian administrators to regulate its use.

In 1831, Secretary of the Navy Levi Woodbury called whipping a "humiliating practice" and asked officers to substitute milder forms of correction. Secretary of the Navy James K. Pauling, in 1840, required accountability in regard to corporal punishment. To keep junior officers from being abusive, punishment was to be administered in the presence and under sanction of the commanding officer. Written orders by the captain, commanding officer, or court martial, entry of punishments in the log book, and quarterly reports to the Secretary of the Navy were to provide a paper trail for review.[7]

The dissimilar reactions of Stockton and Du Pont to the use of flogging emerged early in their naval careers. Stockton, in his first command on the schooner *Alligator* in 1821, threw the "cat" overboard, assuring his crew that he would never flog them. His tactic, according to historian Valle, was to inspire his men to act well by "long, florid speeches." But it was the nation's most inflammatory court martial case over Captain Alexander Slidell MacKenzie's discipline on the *Somers* in 1843, which revealed their disparate viewpoints. This case quickened public scrutiny and debate over naval discipline. MacKenzie, then in command of a school ship on an educational cruise for apprentices, hanged a midshipman, a gunner's mate, and a seaman without a formal trial for conspiracy to commit mutiny. The case became notorious when it was revealed that the midshipman hanged was the son of Secretary of War John Spencer. Stockton refused to sit in judgment on MacKenzie's court martial board because he had already decided he would vote to hang him.[8]

Du Pont informed MacKenzie of his admiration. He felt MacKenzie proved himself an exemplary naval officer who faced an "awful alternative, but how nobly you have met it! No battle could have gained you so enviable a position." Du Pont was sure the benefit to the naval service of MacKenzie's example of strict discipline would be "incalculable," a view held by the New York *Herald* and respectable opinion. Du Pont was an adviser to MacKenzie during his court martial. MacKenzie was cleared by the court. President John Tyler refused to sign the verdict and MacKenzie was not given another command until the Mexican War. The navy's decision to support MacKenzie and its hierarchal elite in the *Somers* case became a symbol of the entrenched Whig and navy conservative order. The tide of Jacksonian Democrats and humanitarian evangelists worked diligently at eroding their power.[9]

The shortage of Americans to man the US Navy gave reformers an opportunity to raise concerns about the loyalty and patriotism of crews if the country should fight a war. Half the men serving on naval vessels were foreigners. Reformers urged the navy to treat seamen with dignity, as free men in a democracy should be treated in order to recruit Americans. When the frigate *Congress* put to sea from Norfolk, Virginia in October 1845, Purser William Speiden listed the number of foreigners in the crew as 110: forty Englishmen, thirty-five Irishmen, five Scots, fifteen to twenty from the European continent, and seven from Scandinavia. In looking at the crew, Du Pont estimated that an additional seventy-five were foreigners using forged American papers. The purser's count of Americans was 325, but Du Pont was sure that they did not number over 250. Du Pont's figures assigned the *Congress* a 435 member crew, composed 43% of foreigners, a somewhat smaller number than on American warships generally. Crew members signed on for a defined cruise or enlistment, without a long term commitment.[10]

Du Pont's management objective as captain of the USS *Congress* was to achieve an "orderly disciplined ship." As an adherent of the movement towards rational, organized efficiency, he believed that discipline was the necessary condition for efficiency. Six days without punishment encouraged him, "with this improved behavior, the men are much more efficient," he exulted. Wishing to be judged moderate, Du Pont pursued what he saw as a "firm, just and consistent course," the middle ground between extreme severity and weakness. He wished to "govern by moral persuasion and influence" and avoid physical punishment out of motives of "humanity, mercy, and a moderate exercise of very great power over a fellow man." He used the lash sparingly as the cruise began, "listening to all excuses and explanations" about first offenses in his system of gradually escalating discipline developed during previous commands. To avoid a clash with the commodore, he stretched out the initial phase of instruction, warnings, and mild non-corporal punishments such as extra duty and withholding of grog rations. He punished promptly for offenses specified in the Navy Regulations, and used minor punishments for the "thousand little infractions" which caused a ship to "fall into a listless, slovenly condition." He gave warnings to the crew that if they repeated an offense, they would be punished, and told the men that he would like to have a disciplined ship by "their own free will and sense of duty," but if he could not attain it that way, "I would have it through the lash."[11]

Pressure on Du Pont's handling of punishment came from officers who upheld the lash as "the grand panacea for all evils in a man of war." Du Pont felt if he did not punish to the extent the officers deemed necessary, they would fail to be keen in assisting his program of watchful supervision. He was sure that vigilance would prevent many offenses and reduce the necessity of punishments; he was convinced that a large number of complaints by an officer against those under him was a sure sign of the officer's inefficiency.[12]

Du Pont effected discipline in a highly conscious manner. He needed to establish control — a word he used often — over officers and crew. His formula for control was vigilant and exacting watchfulness in breaking in the crew. His method of instituting control came from a mixture of personal inclination and external constraints. His most pervasive limitation was his superior officer Commodore Stockton's strong and emotional opposition to the use of flogging. Secretary of State James Buchanan warned Du Pont that Stockton was no disciplinarian. Even before the ship left Norfolk, when Du Pont punished one of the commodore's boat crew for stealing, Stockton initiated a long conversation with Du Pont about it, "most amicable it is true, but in which I could see seeds of future difference." Du Pont discussed each step with Stockton, the infractions and offenses, and the warnings given. His desire for control extended beyond his subordinates. He wished to gain mastery over the commodore by proving that his system worked in order to avoid Stockton's interference in enforcement. He felt his "management" of Stockton required "far more skill" than was necessary for everything else.[13]

Du Pont worried about the reaction of those who possessed even greater power than the commodore — members of Congress. The previous year, Representative John P. Hale of New Hampshire convinced members of the House to pass an amendment abolishing flogging, but it failed in the Senate. At the beginning of 1845, the House brought the question up again. Du Pont knew that unnecessary excess might lead to repeal. He feared losing this essential coercive tool, for "preservation of all discipline involved a judicious application of this authority." He was concerned that the frigate's passengers, a commissioner and a consul being carried to the Hawaiian Islands at President Polk's request, might try to intervene in the administration of punishment. They were presidential appointees with strong political connections, and could endanger his control. He anticipated that the crew might think he would hesitate to punish because of the presence of the passengers. Du Pont challenged both possibilities head-on by conducting the first flogging in full view of the passengers' cabin. He found that the passengers had no "democratic" or "radical notions about punishment" and were not inclined to intercede. He demonstrated to the crew that the presence of passengers would not shield them from punishment. Having made his point, he moved the punishments elsewhere, saying it was to protect the feelings of the men, to spare them having strangers who were not in the service witness their floggings.[14]

When Du Pont began applying corporal punishment, the "colt" was used. It was a hard, twisted rope, the thickness of a man's forefinger, about three feet long. The rope was carried in the caps of boatswain's mates, ready for use, and was applied on a fully clothed delinquent as men went about their work. Use of the colt was a customary practice in American naval vessels and was usually administered at the direction of a deck officer. That was the case in the frigate *United States* when Herman Melville was on board in 1843–1844. Melville considered it an "almost universal practice" for officers of the watch to order the use of the colt at their own discretion. Melville credited Secretary of the Navy George Bancroft with interceding to stop the practice. Bancroft was firm that the law "entrusts the power of the lash exclusively to the commanding officer," and that delegation of that power to subordinate officers was a "flagrant violation of the will of Congress and the people." Bancroft placed responsibility squarely on the commanding officer:

> *Discipline is never so good, as when the commanding officer sets the example of subordination by obedience to the laws of his country.*

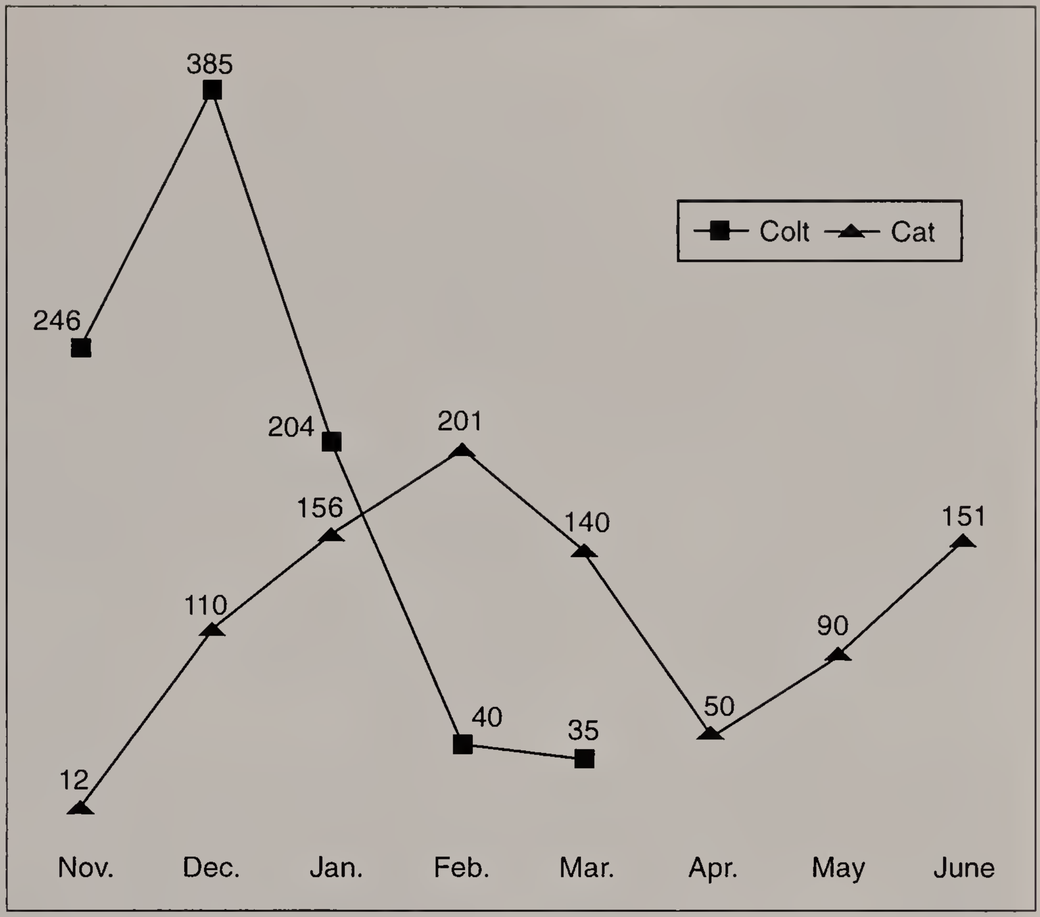
Du Pont had numerous discussions with Bancroft on navy administration prior to the sailing of the *Congress:*

> *Secretary Bancroft took a violent fancy to me. We did not get to sleeping together but we did all else, tete a tete dinner &c &c.*

Du Pont's understanding of Bancroft's views may account for Du Pont keeping a record, in his own handwriting, of colt punishment listing the man's name, offense, and the officer making the report. He would have been scrupulous in administering colt lashes, reviewing and attending their application although that required an around-the-clock attention. Breaking-in of the crew with colt punishments dominated the first three months, from leaving Norfolk until the vessel sailed from Rio. The highest number of colt lashes applied were 385 to forty-two men in December, the second month, when Du Pont lamented that there is "extreme ignorance of that first principle to obey orders."[15]

A man's prior experience of naval life, rating, and age influenced the toughness of his punishment. Landsmen, inexperienced on board ship, brought on to do the drudge work, were the largest category of ratings punished by the colt. They were admonished forty-five times for an average of 8.4 lashes. The second most numerous group punished were thirty-nine ordinary seamen, experienced and partially skilled, who were treated with more stringency than landsmen at an average of 9.6 lashes. Most lenient were seventeen punishments of boys who were given an average of 6.6 colts. Only seven of the skilled seamen were given colt lashes, but had the most severe punishment at an average of ten lashes.

Use of the colt ceased after the fifth month, as Du Pont shifted to dependence on the more severe cat. Du Pont considered his use of the two instruments of flogging, colt and cat, an integrated system. Over a month out, Chaplain Walter Colton noted that punishment was rare, that the cat had been used only once. Serious offenses and repetition of offenses previously punished with the colt were given punishment with the cat-o'-nine-tails. Use of the cat greatly increased the severity of punishment. Not only did nine strands flail and knotted ends bite, but the average number of lashes for each punishment increased from 8.7 with the colt to 10.2 with the cat. A day or two of time in the brig in single or double irons prior to punishment with the cat was usual in cases of assault, drunkenness, or desertion.[16]



Lashes by month: November 1845 – June 1846, excluding court martials. Colt and Cat punishment sources are cited in footnotes 15 and 16.

John Sloan, an Ordinary Seaman and navy veteran, was in the habit of sleeping below during his watch. Five days after getting nine colts for sleeping, he was reported for disobedience of orders and "skulking again." He was dealt eight lashes with the cat in ceremony before the ship's company as required by Navy Regulations. When the boatswain piped "all hands witness punishment" the crew gathered at the gangway on the spar deck as they did for chapel service. The officers assembled near the mainmast, First Lieutenant John W. Livingston and Samuel Moseley, fleet surgeon, at the front of the group. The surgeon was on hand to notify the captain if damage to health made it necessary to stop the flogging. The marines were drawn up in formation with fixed bayonets.[17]

Captain Du Pont came forward with a punishment list. He gave orders for the master-at-arms to escort the prisoner. Charges and Navy Regulations were read. He questioned Sloan about the charges, giving him an opportunity to state his side of the case, a chance he and other men seldom took. Du Pont made it a point to address the crew with words of encouragement, a "promise of indulgence when they behave" and remarks on the "unpleasantness of the duty to punish." He announced that the number of lashes to be applied by the boatswain was eight.

Sloan was stripped to the waist, his shirt laid loosely over his shoulders. The quartermaster bound his feet to cross bars of a grating with his hands raised above his head and tied to hammock netting or rails. The boatswain took the cat out of its special bag. He used a new cat for each man. The naval regulation cat-o'-nine-tails had nine stiff, tightly twisted cords of cotton or flax about eighteen inches long attached to a wooden handle, each ending in a hard knot or lead pellet.

At Du Pont's signal, the master-at-arms took Sloan's shirt off his shoulders. The boatswain stepped forward, combed the tails of the cat with his hand, swung it around his neck and brought it down with full force on the bare back of the prisoner. A whistle blown by the boatswain or a roll beaten by a drummer accompanied each stroke. As each lash landed, the master-at-arms counted aloud, one, two, three, four, five, six, seven, eight. Men who had felt the lash compared the sensation to being struck by molten lead. After medical treatment for cuts, welts, and bruises on his back, Sloan might have taken several days to heal before he was able to return to duty.[18]

"As noble and majestic a frigate as the sun ever shone upon," was Captain Du Pont's praise for the USS *Congress*, built in Portsmouth Navy Yard in 1841. Elizabeth Douglas Van Denburgh, *My Voyage in the United States Frigate* Congress, 1913.

In the small Navy of the mid-nineteenth century, a man's character followed him in the service. Two men who brought bad reputations with them to the ship were punished by the cat before the *Congress* reached Rio. Seaman John Henay, reported by a marine sentinel for improper conduct, was given slight punishment by the first lieutenant. In retaliation, on night watch, Henay attacked the marine and was caught in the act. Officers who heard stories that Henay was "notorious" on the *Macedonian* in the African Squadron told Du Pont he would "have no peace with that man." Du Pont sentenced Henay to twelve lashes of the cat.

In another incident, a crewman was kicked in the face as he was lying between the guns on deck. Officers assumed that in the dark, blows intended for a man known for reporting delinquents damaged the wrong man. Henay was suspected. Du Pont believed him guilty, but felt there was not enough evidence to punish him "though I suppose most officers would have done so." Du Pont wrote in his notes on punishments that "this feeling of private revenge, for supposed injury from one man to another is a feature of the day in new ships of war." Du Pont refrained from accusing Henay, but determined he was a "bad man." He planned to get rid of him at Rio by transfer to a ship going home since regulations prohibited discharge of men in foreign ports. Henay said he was an Irishman, but Du Pont was sure he was an American.[19]

James Clarke, a landsman, was put on report for insolence to the ship's corporal and trying to entice another man to disobey the orders of the corporal. He was to be given twelve lashes. When Clarke came before Du Pont to hear his sentence, he "entreated with an earnestness rarely witnessed not to be punished." Du Pont turned down his plea and judged Clarke to be an Englishman. He learned later that Clarke made trouble in the draft of men he came with from New York and "caused" the drowning of one man. Du Pont classed Clarke with Henay as a "man of similar character."

A bad record was cumulative, to be played out in more severe punishments. Du Pont expected to have men of bad character in his crew; it was only a matter of identifying who they were. He did not believe that all men were innately flawed; only that some were. He sensed he had a number of them aboard who were "very bad, careless men, English deserters and New York loafers, escaping from debt and the pursuit of the civil authorities." It was the job of navy hierarchal authority to keep bad men in submission so that they could not subvert an orderly system and place extra burdens of work on good men. Since imperfections were internal and fixed, they could only be restrained by external punishment.[20]

These two bad men, Henay and Clarke, tested Du Pont's comfortable assumptions on their nature. Du Pont was sure that Henay would continue to give trouble. He had several "confederates in iniquity" and would extend his bad character to the ship, tarnishing her reputation, for he would "increase greatly our punishment list." One day while drawing water over the side during general quarters, Henay fell overboard. Du Pont, below on the gun deck, heard the "man overboard" call. He "sprang on deck like a panther" and gave orders with "such energy" the rescue boat was lowered in one minute. Even before the boat hit the water, life buoys were cut away, one "falling very near him," and one of the drag ropes "of my own contrivance" passed over his body. Henay saw neither. His head remained under water, only his two thrashing hands were visible to Du Pont. He drowned in less than two minutes. When the boat brought back his cap, he learned who the man was. There was no man on board "less likely to slip." Du Pont investigated the place where Henay fell and determined that he could not have been struck, that he fell clear. He was convinced that Henay's death had a striking effect on all of the crew, and especially on Henay's cronies.[21]

There was a tone of wonder in Du Pont's manner of recounting his experience of the death to his wife Sophie. He emphasized his own diligence in the rescue attempt and the fact that he did not know until afterwards who the man was. It was as though he feared his own power, that his wish to be rid of Henay might have influenced either a suicide or a just God taking a hand, for he prayed for guidance in regard to punishments and discipline. Du Pont told Sophie that he entreated assistance from above, taking his cue from an observation by Matthew Arnold that men too seldom sought guidance from God in their worldly affairs. In addition to Navy Regulations and God, he had his own internal standards to satisfy in his application of punishment, the standards of his "conscience and sense of right."[22]

Yet it was Clarke who most challenged Du Pont's assumptions on bad men. Clarke became, in Du Pont's own words, "one of the best men in the ship" and thereby appeared much closer to realizing the view of human nature that Sophie urged upon him. Sophie, in discussing her husband's role in punishment, revealed her evangelical persuasion:

> *There is a* generous *sort of feeling in human nature, that makes most men scorn to do wrong when they feel they are trusted or respected.*

Sophie knew that punishment was a "necessity," yet hoped her husband would use it only as a *"last resort."* She displayed her patrician background in suggesting that sailors and soldiers on a ship of war should be treated as one would treat children or servants:

> *It is a point with those we govern, to inspire them with self respect, by showing that we* respect them, *if they prove themselves worthy of it.*

She proposed taking every opportunity to commend those who deserved it, thinking it would accomplish more "on some characters than a thousand punishments." Having frankly stated her thoughts, she smoothed away her woman's presumption in doing so, saying she was recalling to her husband his own views which might slip his mind in the hurry and distractions of his work.[23]

An explosive crisis in ship's discipline developed when men wrenched locks off the spirit locker on Christmas Eve at Rio de Janeiro and handed out whiskey by the bucket. Du Pont was on shore. Upon his return, he ordered the drunks confined. Some knocked down sentries and abused officers as they were being ironed. The next day, Du Pont broke two petty officers but did not otherwise respond, preferring to wait until the liquor's effects wore off. He punished three men who were not seriously involved to the full extent of his authority, twelve lashes.

Quarreling broke out among the crew. One man struck another and was punished with twelve lashes. Du Pont judged that the crew thought the commodore would not back him in punishments. The *Congress* was anchored among American and British war ships whose officers and men would be aware of this breakdown in discipline. The public nature of the problem may have determined Du Pont's decision to make a stand. He induced Commodore Stockton to support him in trying the two "ring leaders" by court martial. Du Pont's own perception was that if he had tried to inflict equivalent corporal punishment at the beginning of the cruise, the commodore "would have stopped me, and a separation must soon have followed." Stockton, on the contrary, decided that a recovered deserter should also be taken before the court. Du Pont felt this was the final step in achieving control over the crew, "and there never was a crew under more complete subjection, quailing under my very looks." He demanded a week of increased vigor from the officers until discipline was "perfect throughout."[24]

Chaplain Walter Colton suggested to Du Pont that he had gained a good sense of the temper of the crew and become acquainted with the character of individual men and would "know now *where* to strike." Du Pont found that although Colton was humane and opposed corporal punishment, he was also a sound disciplinarian and strongly supported Du Pont. Colton's beliefs about punishment were liberal in theory and pragmatic in practice. Like Sophie Du Pont's, they were affected by evangelical religion. He wished to substitute moral influence, since "virtue has motives and impulses to good conduct stronger than those ever wielded by physical force." He was against severity when milder measures would work. Yet, in the serious case when Henay attacked a marine, Colton maintained that a court martial should give the man a punishment that would "linger with terror in his memory" because "leniency to the incorrigible is destructive of discipline." Still, he contended that the navy needed substitutes for flogging since the power to inflict corporal punishment was often abused. Moreover, it was "opposed to the spirit of the age" while public opinion demanded its abolition.[25]

Du Pont justified his new severity to himself. He had done everything he could to bring the men along with "persuasive incentive to duty." He had patiently investigated all offenses, accepted promises, given warnings, and proved he meant his warnings by punishing for repetition of offenses. It was the "rock of my strength" having "put off the evil day to the last," as Sophie hoped he would. He felt sure every man knew he "brought it on himself," that they had violated their social and legal contract. They had broken faith with their voluntary enlistment. It was their place to possess a sense of duty to the service and to be obedient. Du Pont's deeply held tenet was that severity "if regulated by impartial justice and consistency is mercy in the end." He also saw strictness in punishment as a deterrence for future offenses; a hundred more lashes in Norfolk or on the passage might have avoided the court martial trials. The impact of the court martials, Du Pont was sure, would save the men "thousands of lashes" during the remainder of the cruise.[26]

The two court martial trials which Du Pont initiated exhibit the operation of the naval justice system at its pinnacle. The primary function of the trials was to protect traditional naval order. Several aspects of the safeguarding of naval order are illuminated: hierarchal command, interpretive judgment, deferential behavior, and traditionally verified space. Sovereignty and power symbols reinforced the hierarchal command which presided over court martial proceedings. These courts were held on a man-of-war, the sloop USS *Plymouth.* A court martial flag flew over the vessel, and a gun boomed from the vessel to mark the commencement of the court's sitting. The highest ranking officers available were appointed to the court and carried side arms while in attendance.

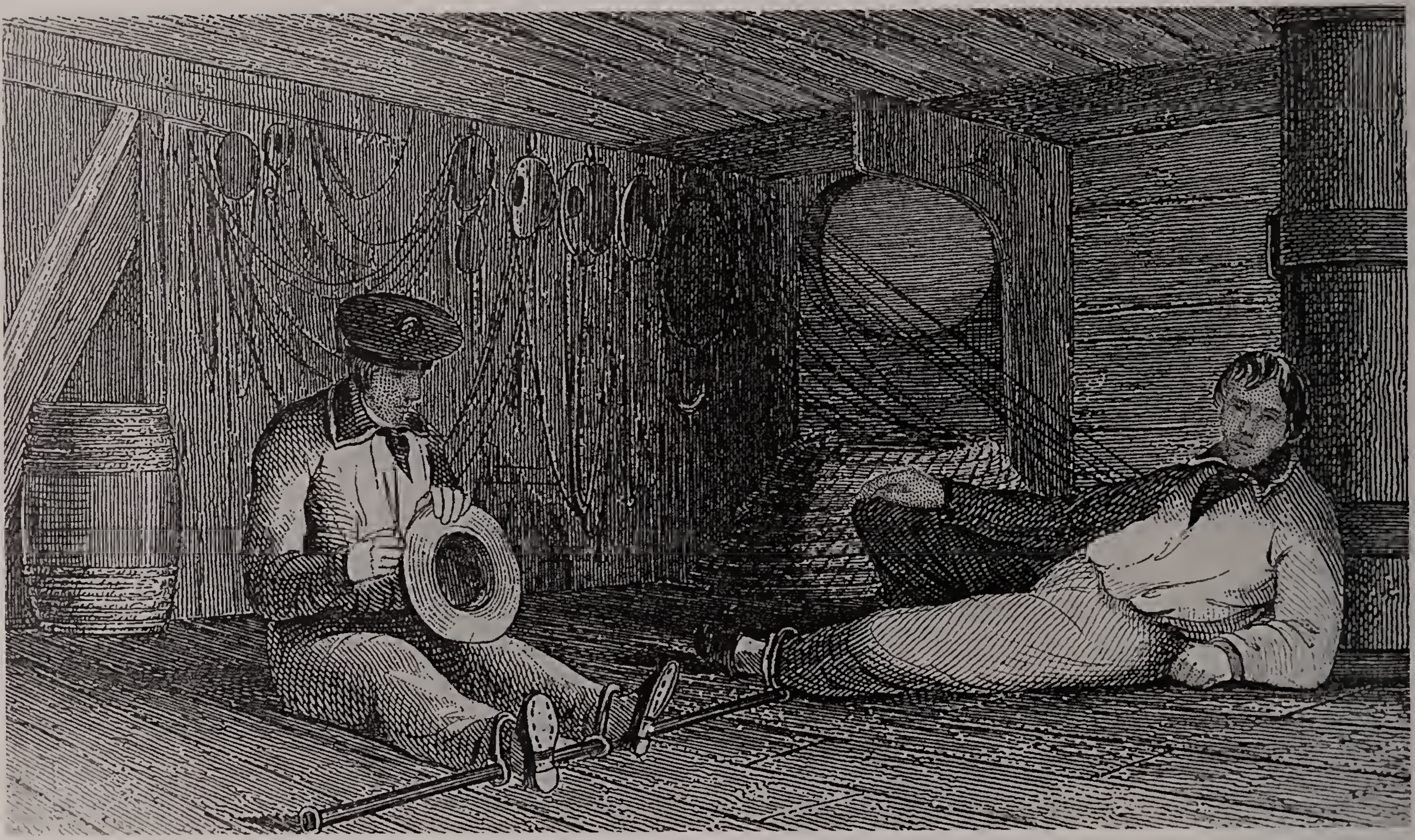
The offenses being tried occurred on Christmas Eve and Christmas Day. Although at this period, American Protestants did not celebrate the holiday in a visible manner, nearly half the crew were foreigners, and the *Congress* was at anchor in the harbor of Rio De Janeiro where elaborate Catholic festivities were in progress. The frigate's top officers were on shore on Christmas Eve. Commodore Stockton was living at the Hotel Pharoux, where Du Pont joined him for dinner. A rain storm deluged the vessel. A lull in the downpour permitted Du Pont to board the ship a little before midnight. The report to him was that the crew was very sluggish in attending to duty when they were required to move the vessel, behavior which was traced to men having broken into the spirit room and dispersed liquor by the bucket. The two men Du Pont called ringleaders in that incident, landsmen Daniel Kennedy and Thomas Moore, came before the court. The court did not attempt to show that these men were instigators in the criminal action of breaking into the spirit locker or distributing the liquor. Instead, the court concentrated on the men's drunken disregard for deferential behavior when apprehended, their acting out through physical and verbal assault, and the use of ambiguous body language.[27]

The *Congress* crew of 435 men were accommodated in a vessel 179 feet long, less than forty-eight feet wide, and twenty-two feet six inches deep, further cramped by a cabin for thirteen passengers across the stern of the spar deck. In naval space, civility depended on everyone knowing the proper use and times of use of every foot of space. Control of the use of space was an underlying concern in these two trials. Intrusive crossing of space boundaries constituted a disciplinary lapse. At the same time, the carrying out of discipline was associated with sanctioned spaces — the main mast, the gangway, the area designated as the brig.[28]

Commander Henry Henry of the *Plymouth* served as president of the court, performing the role of judge in regulating proceedings. Marine Lieutenant Jacob Zeilin of the *Congress* was judge advocate or prosecutor and was responsible for an accurate recording of the proceedings. Six lieutenants, the rank next highest to the president's, served as members of the court: Theodore P. Green, Richard L. Tilghman, and Enoch Parrott, third, fifth, and sixth lieutenants of the *Congress,* and Henry Darcantel, Lewis C. Sartore, and William Pay, three lieutenants from the *Plymouth.* Captain Du Pont preferred the charges, and witnesses selected by him for the prosecution were officers or men whose duty on the *Congress* was in control, either as members of the master-at-arms staff or the marine corps.

Defendant landsmen Daniel Kennedy and Thomas Moore were delivered as prisoners to the court by the *Congress* launch. The defendants were allowed to object to any member of the court, half being their superior officers. Both waived the opportunity. Told they could choose an adviser to assist their defense, both selected the chaplain, the Reverend Walter Colton. A ship's chaplain was not a generally respected figure among line officers, and Du Pont, although he valued Colton, thought he was not much appreciated by officers who shared the ward room.

Daniel Kennedy was suspected of breaking into the spirit room and stealing and drinking its liquor. He was charged with "scandalous conduct." He compounded his offense and added the charge of "insubordination and mutinous conduct" by being noisy and abusive when taken into custody. The incident began about



Prisoners waiting to be flogged were retained in the brig in single or double irons. Space being at a premium on naval vessels, brigs were not structures, but were understood spaces. J. G. Heck, *Iconographic Encyclopedia*, 1864, Nimitz Library, Annapolis, Maryland.

seven o'clock on Christmas Eve. The routine of the vessel was disturbed by an unusually late supper served to the ship's company. The purser's steward reported to Master-at-Arms Burgess P. Allen that the spirit room had been broken open, and supposed Kennedy did it as he was lying in the cockpit close to the spirit room hatch, drunk, with a cutlass near him. Allen noticed a half hour earlier that Kennedy had been drinking, but had taken no action. The master-at-arms went to the cockpit and found Kennedy was much more intoxicated. As Allen took Kennedy to the main mast to report him to officer of the deck Lieutenant Theodore P. Green, Kennedy tried to break loose and threatened Allen with violence. Green ordered Allen to confine Kennedy under the sentry's charge and, if he became obstreperous, to put him in irons.

Marine Private David Lynn was on guard at the brig area when Kennedy was brought in. While the prisoner was being confined, Midshipman A. H. Waring told him to make less noise. Kennedy replied:

> *Go to hell. If you let me up I will whip you God damn you.*

As soon as the master-at-arms left, Kennedy moved out of the brig, saying he wanted to go after more rum, but Lynn stood over him. Marine Lieutenant Zeilin happened along. Seeing that Kennedy was lying opposite the second gun, he said he should get up and go between the two guns. The brig was not an enclosed space, but an understood space between the two forward guns on the starboard side of the main gun deck. Prisoner Kennedy asked who gave that order. Being told it was marine officer Lieutenant Zeilin, Kennedy responded that he would "not obey the order, that he was nothing but a damn marine, and he would fight against them," expressing a typical attitude of seamen for marines who enforced their discipline. Kennedy attacked brig guard Lynn, pulled him to the deck, wrenched his handkerchief off, and tore his trousers. Master-at-Arms Allen and Sergeant Robert Houston arrived, put irons on Kennedy, and moved him back into the brig space. Lieutenant Zeilin testified that from the other side of the deck he heard Kennedy slander First Lieutenant Livingston, calling him a coward.

Defense witnesses were two ordinary seamen. One, George Murray, was in the brig, drunk, when Kennedy was brought in. He carried into court, on his back, the marks of twelve lashes received the previous day. The other was George Watson. Both testified that Kennedy told them he had or was going to get liquor from a black man, a landsman named Page. Watson offered that he himself had gotten liquor from Page the night of December 24. Dennis Page, whose job was serving officers in the ward room, was called to testify. He reported that he went into the cockpit to get something and saw Kennedy "setting at the spirit room hatch with two or three more people, one of whom may have been Murray." Page, although a black man and a steward, had gained sufficient status from working in the officer's ward room and knew enough of the proper use of ship's spaces, to tell the men that they did not belong where they were, to "go out of the cockpit" or he would report them. This may account for the witnesses' attempt to place the blame on him for distributing liquor.[29]

The remainder of Kennedy's defense was a seven page written statement pleading that he came into the navy a sober man, had been given a daily grog ration which created a desire for more liquor, which led him to drink an offered Christmas drink with a ward room service. Kennedy's text was founded on a premise held by the chaplain, his defense adviser. The writing style was full of the suppositions, flourishes, and prolixity that Colton habitually used. Chaplain Colton believed that nine out of ten offenses punished were connected with the government's whiskey ration:

> *The government presents itself before the seaman with a cup of whiskey in one hand and a cat-o'-nine tails in the other.*

At a time when navy officers supported the grog ration, Kennedy's statement would not be popular with members of the court. The court did adopt one point of his defense, that no one gave evidence that the cutlass lying by him was the instrument used to pry open the lock of the spirit room hatch. This was a mere technicality, for testimony did not attempt to prove Kennedy's criminal actions. It concentrated upon his behavior after he was apprehended: his disregard of orders, aggression against controllers, violation of space restraints, and disrespect toward officers, illustrating the court's focus on upholding navy order.[30]

Thomas Moore was the accused in the second trial. The charges against him were insubordination and quarreling consisting of obscene and offensive language towards a sentry. He was also charged with contempt to a superior involving insolent bearing and manner, accompanied by disrespectful gestures. Du Pont lumped Moore together with Kennedy as a ringleader in the spirit room break-in which occurred on Christmas Eve, but the aggressions which catapulted Moore to notice did not happen until the following day. The increased vigor and attention Du Pont required from officers after the break-in led him into direct contact with Moore. Trial testimony illustrates the extent to which the handling of discipline was constructed on an officer's interpretation of words, voice inflections, and body mannerisms. Historian Greg Dening's insight regarding eighteenth century British naval punishment goes to the heart of the matter:

> *It was in the ambivalences that the pain of power was felt and politics began.*[31]

The chain of events started when marine Private Daniel Collins, sentry at the brig, ordered Moore to move away from the brig. As he left, Moore turned to retort, "kiss my ass." The sentry took him to the mainmast to report his language to First Lieutenant Livingston, who ordered Moore to remain at the gangway, a place where floggings were staged. Yet, when the sentry was dismissed to go back to guard duty at the brig, Moore followed him down to curse him with "damn your soul." As marine sergeant Robert Houston arrived to take Moore back to the mainmast, he heard Moore tell sentry Collins he was "a lying son of a bitch and had reported a falsehood."

Lieutenant Tilghman, who was sitting as a member of the court, testified. He arrived on deck to relieve Lieutenant A. F. V. Gray as officer of the deck while Lieutenant Livingston was asking Gray to keep Moore there. As soon as Livingston left the quarterdeck, Moore rushed below. Gray went after him and had him returned to the mainmast. Tilghman sent to inform Du Pont and Livingston of the event. Captain Du Pont walked up to Moore. Tilghman did not hear what the captain said to Moore, but as he drew closer he overheard Moore reply, "very good sir. I too am satisfied." At the same time Moore was "shaking his finger and looking at the captain sternly." Moore was in Tilghman's division and supported his prior good character, stating: "he has always been obedient and respectful, and I considered him a good man."

First Lieutenant Livingston testified on the difficulty of interpreting Moore's intentions from his actions:

> *There is something strange in his manner and I frequently had my doubt whether the man intended to be insolent or not, sometimes he has laughed in a manner I thought disrespectful. I have had my eye on him.*

Livingston was conscious that a navy view of behavior was markedly different than that of a man who had never served on a man-of-war before. To a navy man, Moore's manner toward the Captain was "insolent in the extreme," but a man unaccustomed to the navy "might have assumed that manner without the intention of being disrespectful." He added that Moore "shook his finger at Captain Du Pont within three feet of his face." He either "intended to be disrespectful or a fool."

Du Pont respected Livingston and Tilghman, the two officers who testified before him, above all others under his command, yet his interpretation of Moore's actions was decided. He confined his testimony to Moore's contempt towards a superior, himself. He reported that his inquiries to Moore were made in "my usual calm manner," but the reply was "very offensive and disrespectful." Du Pont stated that Moore's language to him was not objectionable, yet "his whole conduct evinced a spirit of insubordination and disrespect." He found it difficult

> *To convey a proper idea of that which is confined to manner and deportment but I never remember in the course of my service so offensive a bearing to a superior officer, on two different occasions his hand was raised and his finger pointed towards my face.*

Captain Du Pont ordered marine sergeant Houston to put Moore in double irons and confine him.

Moore spoke briefly before the court on his own behalf. Captain Du Pont's visible affront precluded Colton, Moore's adviser, from attempting anything further. Moore said he was drunk, that he had consumed "several Tots of Grog found on the Berth deck," but he hoped they would take into account his general good character.

The court's deliberation phase to determine verdicts and sentences was closed, and no member of the court was allowed to reveal the discussion, his own vote, or that of any other member. Voting was done in order of rank, from the lower to the higher, so that the vote of a higher rank would not influence subordinates. The court sentenced Daniel Kennedy to receive one hundred lashes, the greatest number allowed by court martial, with the cat-o'-nine-tails on his bare back. The court sentenced Thomas Moore to eighty lashes. Commodore Stockton, under his right of review and approval, cut the men's sentences in half:

> *Considering that the object of punishment is not vengeance but merely an example to deter others from the commission of offenses.*

Only after the *Congress* sailed from Rio De Janeiro were the court martial sentences read to all hands and male passengers, who were invited to join the crew as witnesses to the punishment. In *White-Jacket,* Melville highlights the incongruity of innocence and messages of peace in tandem with the destructive power of a war machine. He placed a young Spanish girl on the frigate's deck holding the chaplain's hand during worship services, surrounded by the warship's grim crewmen and thirty-two pound cannon. He called the girl's presence a "sweet relief from the sternness of our martial discipline." The softening and humanizing presence of a young woman passenger was absent the day of court martial lashes on the *Congress.* Thirteen-year-old Elizabeth, daughter of Consul Joel Turrill, was in her stateroom holding a pillow round her head, struggling to shut out the whang of 115 lashes: fifty for Kennedy, forty for Moore, and twenty-five for deserter James Ore. She was sure punishment was "terrible" and glad she was not on board during the previous three-year cruise, when Captain Voorhees inflicted 4,080 lashes.[32]

Du Pont's treatment of men who got drunk and became disrespectful was a traditional navy manner of handling this persistent problem. Commander Uriah P. Levy, who wished to abolish flogging, took a preventive tack in regard to drunken men. Officers were not allowed to have any dealings with a drunk. The man was turned over to his mess mates, who were instructed to tie him in his hammock until he sobered up. The following day, the man was reprimanded by the captain and returned to work. His system reduced the number of lashes, as well as interruptions to work time, and had been widely publicized. Du Pont and other officers did not adopt Levy's system. They considered the power to impose discipline a command duty, and valued complete and direct control more than diminished punishments and prevention of lost work time.[33]

Opportunities offered by shore leave in Rio de Janeiro brought nine other men up to be punished for drunkenness with twelve cat lashes. During the remainder of the voyage, offenses and punishments on the *Congress* related to circumstances surrounding the vessel. A fierce gale and Cape Horn turbulence in February generated twenty-three cat punishments, the largest number in any month of Du Pont's cruise. The prevalent offense was "skulking" among landsmen and boys who had never been to sea before. Most punishments were five to nine lashes administered during lulls in bad weather. Other lashes were for fighting and aggressive behavior.

Anchored in Valparaiso in March, men were given shore liberty in groups of sixty. Four men who deserted were brought back. The officers were sorry to see two of them again as "they were notoriously the two most worthless fellows on board." Every effort was made to recover one man, a German from Bremen, "the Samson of our ship," a man seven feet tall who could carry a water tank which two other men could barely lift. He was a man highly regarded for his attention to duty. He fell in with other Germans on shore, drank too much, and overstayed his leave. He would have returned but he considered being flogged a brand of disgrace to which he could not submit. The chaplain said that he would not have been flogged, only that a future liberty day might have been withheld. This suggests deviation from standard punishment based on officers' impressions of a man's character. Desertion was a listed offense in Navy Regulations. James Ore, the ship's first deserter in Rio de Janeiro, who waited at the pier the next morning for the boat to pick him up, received a court martial award of fifty lashes, reduced to twenty-five by the commodore. All other recovered deserters but one were given twelve lashes, including three of the four recovered at Valparaiso.[34]

In addition to worthy individuals, treatment of the fourth deserter provided evidence of a class of seamen who were privileged in regard to punishment. Charles Allen, the fourth deserter, was sentenced to twelve lashes and placed in the brig for three days; but not in irons. On the day when others were punished with twelve lashes, he was given six. The circumstance which distinguished Charles Allen from others was that he was captain of the foretop. His favored treatment reminds us of Jack Chase, Herman Melville's heroic captain of the maintop in *White-Jacket* who deserted, served in the Peruvian Navy, and was restored to American service without punishment. Further evidence for the privilege of this group was the treatment of William Lyons, captain of the top on the ship of the line *Columbus,* two months later. Lyons was given a reprimand when others were awarded lashes for the same offense "disrespect and disobedience of orders," an offense listed in the regulations.[35]

Another dispensation of privilege was Commodore Stockton's exemption of his servants and barge crew from punishment no matter what they did. Du Pont discovered that Stockton "goes for having privileged classes" when they were still at Norfolk and he punished one of the commodore's boat crew. Du Pont saw this special treatment as "injurious to the discipline of the ship" and "dangerous to me." By the time they were at Valparaiso, it was an irritant but not serious, for he believed his "authority and control" were complete, pointing out that the crew were improving in their duties every day and gave the ship an excellent name. The commodore's handling of his barge crew was exposed to comment at Callao, when three of his bargemen ran while the barge was on shore waiting for Stockton to return from Lima. Du Pont compared his gigsmen, who were punished in the same way as the rest of the crew, to those who served Commodore Stockton's barge and were never punished, noting the difference as "two opposite systems."

Du Pont had punished two of his seven gigsmen three months earlier. All remained "sober, beautifully clean, always there when needed," and his long, handsome boat was the pride of the ship, whereas the commodore's men were always straying off and there was constantly something awry on the barge. Stockton's method of reprimand was to turn his bargemen out and replace them "instead of whipping them and putting them back." Du Pont considered the desertion of Stockton's barge crewmen "a usual sailor's return for over indulgence." To compound the matter, the officers believed that Charles Gibson, one of these men, had rummaged passengers' belongings and stolen ten dollars while taking care of a cat for the commissioner's wife, who was in Lima. Du Pont sent police after the men and offered a reward of fifty dollars apiece for their return.[36]

Deserter and bargeman Henry Allen was caught and placed in the brig in double irons. The commodore told the passengers and let it be known about the ship that he would not sail until Charlie Gibson was captured. Sir William Johnson, a Black Jamaican steward who waited on the passengers, served as an informal information channel outside the formal hierarchy. He sent a message to Gibson that he best give himself up. Seven days after Henry Allen was captured, deserter Gibson came on board saying he wished to clear his name of the charge of stealing, although he knew he would be punished for desertion. He joined Allen in the brig in double irons. And there they sat.

Eight calls to witness punishment were heard before Gibson, after thirty-nine days, and Allen, forty-six days, were flogged twelve lashes each. This was the only time during this cruise when imprisonment was a major component of punishment. Was this a compromise? Was Du Pont waiting, hoping to overcome Stockton's reluctance to have men who served him flogged? Long periods of confinement were usually restricted to men waiting for a court martial trial to be convened.

The *Congress* remained in port almost a month after the two deserters came on board and the location of the third deserter was known, but no further effort was made to bring him in. He was not considered worth the fifty dollar reward. The seven men who deserted on this cruise were all rated ordinary seamen.[37]

Six months into the voyage, at Callao, Du Pont was continuing efforts to break in the crew. They were improving daily, both physically and in conduct. Du Pont considered himself "patient, considerate, anxiously alive to their rights and comforts and health, consistent and impartial as I can be." Yet he also regarded himself as "firm and exacting in obedience and more austere and severe than before." Du Pont believed every day that they had reached the turning point when "increased efficiency and good conduct will accompany less and less punishment." He was especially pleased that drunkenness had nearly ceased, even though over a thousand dollars had been issued to reimburse men who had stopped their daily grog ration. Boats went to and from shore without officers, yet crews did not smuggle liquor until an attempt to bring off a skin of rum in the third cutter was discovered the day the vessel prepared to leave port. No one claimed ownership.

Captain Du Pont announced that unless the name of the owner was reported, all would be punished. He gave the crew an hour to decide. Three men named Ordinary Seamen James Campbell and William Burrows as the smugglers and they were given the full twelve cats. Twenty-one barrels holding 576½ gallons of whiskey were the first supplies brought on board at Honolulu. However, it was in harborside grog shops like Joseph Booth's National Hotel with its liquor and dance hall where the men got drunk and pushed up the score of punishments.

Having received news of the outbreak of war with Mexico, the *Congress* sailed on 23 June 1846 for Monterey, Alta California. The first day at sea thirty of the crew voluntarily gave up their daily liquor ration. A religious and temperance movement, begun in Callao and fostered by bible class and prayer meeting every evening as they sailed to Honolulu, expanded. Forty men attended meetings and nearly half the crew gave up grog rations before they reached the California coast and war. Chaplain Colton was convinced that religious interest had a strong effect on ship's discipline, inclining men to perform their duties, so that "you may sink your handcuffs, cats, and colts in the depth of the ocean."[38]

The *Congress* arrived at Monterey eight days after Commodore John D. Sloat on the frigate *Savannah* took possession and sent the sloop *Portsmouth* to occupy San Francisco Bay. Stockton succeeded Sloat as commodore of the Pacific Squadron. Du Pont moved to command of the sloop *Cyane*.

During his eight months on the *Congress*, Du Pont concentrated daily attention on controlling discipline. He expected his system of training, admonishment for offenses, warnings, and gradually escalating punishments would result in a diminishing number of offenses requiring fewer punishments. Were his hopes realized? Seventeen percent of the men on board had been punished with colt lashes, nearly a third more than once, and sixteen percent with cat lashes. A reduction of lashes did occur towards the end of the cruise, in March and April. More important than the numbers involved was an alteration in type of offense and rating of men punished. New men had become accustomed to work routines and learned to comply with the obedience requirements of naval discipline, greatly diminishing the frequent offenses of the beginning of the cruise. Only eight of the forty-two landsmen and boys who were punished with the colt graduated to the cat. "Punishment has nearly disappeared," Du Pont recorded, and advice corrected minor offenses, so that "I can *now* be indulgent without lowering the standard of correctness which we have reached."

The twenty-nine cat punishments in the last three months related to offenses connected to liquor and assault, offenses often considered an ingrained part of a sailor's character. Seamen, the most experienced men aboard, and ordinary seamen received the greatest share of these cat punishments, which accounted for half of the lashes awarded over the cruise: liquor (35%) and assault or fighting (19%). The crew's own testimony was that they never saw such a change in a crew. They believed the captain had succeeded and "the good men in the ship are completely in the ascendancy." This report from the chaplain coincided with Du Pont's own observation going into the last month of the cruise:

> *There is a great cheerfulness among them and I begin to discover a* pride of ship, *which for a long time I utterly despaired of.*[39]

Did Du Pont meet his goal of being moderate in punishment? A rough comparison with two navy vessels commanded by officers who had reputations, one for moderation and one for heavy flogging, may give an approximate answer to that question. The comparison was made on the basis of six months of cat punishments reported to the Navy Department in 1846–1847, excluding court martial offenses. Commodore James S. Biddle, known for his kind treatment of crews, on the ship-of-the-line *Columbus* carrying up to 300 more men than the *Congress,* Captain T. W. Wyman, recorded 149 punishments for a total of 1,240 lashes, at an average of 8.3 lashes per punishment. A milder boys' cat, called a "kitten," applied 111 of these lashes. The frigate *United States,* slightly smaller than the *Congress,* carried Captain Joseph Smoot under Commodore George C. Read, who had been condemned by a seaman author for brutality. That vessel recorded 2,082 lashes in 198 floggings for an average of 10.5 per punishment. Du Pont, in a six month period from January through June, 1846, registered seventy-eight punishments for 788 cat lashes, averaging 10.1 lashes per flogging. Du Pont could be considered moderate in the number of men punished, yet severe in the number of lashes awarded for each offense.[40]

Du Pont's greatest satisfaction came at Monterey when British Admiral George Seymour of the 80-gun HMS *Collingwood* complimented him on discipline on the *Congress.* Seymour was amazed how the American Navy "with our democratic institutions" could "keep up such strict discipline among our crews?" Du Pont had high admiration for the British Navy and was elated at this praise of his ship's discipline. The comment was made in the presence of Commodore Stockton, which added to Du Pont's pleasure; differences over flogging had engendered a discrete engagement of wills between them throughout the cruise. His hard won sense of mastery in his management of the use of flogging as an instrument of discipline was a short lived victory.[41]

Debate over the abolition of flogging in the navy continued in Congress at the conclusion of the Mexican War, and was shaped by the issue of slavery and its possible extension to newly acquired western territory. Northerners considered flogging a punishment given to slaves, while Southerners spoke of it as a manly punishment. Stockton and Du Pont's opposing opinions on flogging became a matter of public record as Secretary of the Navy William B. Preston elicited naval officer testimony as ammunition for debates in Congress in 1850. The Secretary asked the question: "Can corporal punishment be dispensed with, consistently with the interest and efficiency of the naval service?" Du Pont was with the majority, among the eighty-four navy officers responding, who wanted to continue flogging and opposed changing the law. Stockton was in a minority of seven who favored the abolition of flogging.[42]

The determination of navy officers to continue using corporal punishment was overwhelmed by public petitions from northern states demanding that Congress abolish flogging. Early in the debates, Du Pont rushed to Washington to urge the necessity of flogging or adequate substitutes to enforce naval discipline. His plea was effective with some members of Congress, but was not sufficient to curb the tide. Northern Democrats abolished corporal punishment on United States naval, merchant marine, and whaling vessels on 28 September 1850. Stockton returned from leading navy forces in the conquest of California, resigned his commission, and was elected to the Senate from New Jersey.

Several members mounted a drive to reinstate the navy's right to flog in 1851–1852. Stockton performed as an ardent leader in sustaining the ban. From the floor of the Senate, Stockton questioned whether the American sailor "shall be scourged like a slave" or whether American citizen as he was "be entitled to all his rights as a freeman?" Stockton emphasized the navy's isolation from the values of the broader American community when he told the Senate that reform had banished flogging from the Army, the prison, the schoolhouse, and the family, leaving "defenders and champions nowhere but in the Navy."[43]

Offenses punished by Colt and Cat

	Colt			Cat		
	Offenses	**Lashes**	**Average lashes**	**Offenses**	**Lashes**	**Average lashes**
Assault	8	76	9.5	18	171	9.5
Desertion	0	0	0	6	66	11.0
Disrespect & Disobedience	39	359	9.2	13	137	10.5
Liquor	0	0	0	29	319	11.0
Skulking & Neglect Duty	57	463	8.1	13	110	8.5
Scandalous Conduct	0	0	0	8	83	10.4
Theft	1	12	12.0	2	24	12.0
Totals	105	910	8.7	89	910	10.2

Colt and Cat punishment sources are cited in footnotes 15 and 16. Note: Multiple punishments included twenty-two men with the colt; fifteen with the cat.

NOTES

1. Samuel F. Du Pont to Secretary William B. Preston, 5 February 1850, 44:159, bound in manuscript volume "Corporal Punishment and the Spirit Ration," Reports of Officers, 1850, RG45, National Archives, hereafter cited "Corporal Punishment;" James E. Valle, *Rocks & Shoals: Order and Discipline in the Old Navy 1800–1861* (Annapolis: Naval Institute Press, 1980), 248, 251.
2. Harold D. Langley, *Social Reform in the United States Navy, 1798–1862* (Urbana: University of Illinois Press, 1987); Myra C. Glenn, *Campaigns Against Corporal Punishment: Prisoners, Sailors, Women, and Children in Antebellum America* (Albany: University of New York Press, 1984); Sophie Du Pont to Samuel F. Du Pont, 15 October 1845, W9–21603, Hagley Museum and Library.
3. James M. Merrill, *Du Pont: The Making of an Admiral: Biography of Samuel Francis Du Pont* (New York: Dodd, Mead, 1986), 2–5; Samuel Francis Du Pont, 1803–1865, Robert Field Stockton, 1795–1866, Richard Stockton, 1730–1781, and 1764–1828 in *Dictionary of American Biography* (New York: Scribner, 1958–1964).
4. Samuel Francis Du Pont to Sophie Du Pont, 11 December 1845:359, W9–974, Hagley Museum and Library. Pages of letters are numbered chronologically in a single sequence, and the Museum's W9 file number is listed for the first citation of each letter, hereafter cited Du Pont to Sophie.
5. Samuel F. Du Pont, 5 February 1850, 44:159, Robert

F. Stockton, 6 February 1850, 17:82, "Corporal Punishment;" Glenn, *Campaigns Against Corporal Punishment,* 142. Commander George E. Buker, "Captain's Mast: Conservatism vs. Liberalism," *American Neptune* 30 (April, 1970), 139–146.

6. John D. Byrn Jr., *Crime and Punishment in the Royal Navy: Discipline on the Leeward Islands Station, 1784–1812* (Alershot Hants: Scolar Press, 1989), 10, 53; Christopher McKee, *A Gentlemanly and Honorable Profession: The Creation of the U.S. Naval Officer Corps, 1794–1815* (Annapolis: Naval Institute Press, 1991), 251.
7. Valle, *Rocks & Shoals,* 288; Langley says that in March 1833, the Army convinced Congress to restore flogging for men convicted of desertion by a general court martial, Langley, *Social Reform in the United States Navy,* 152, 148, 155; Glenn, *Campaigns Against Corporal Punishment,* 128; "Naval General Order," 29 May 1840, Circulars and General Orders, I, RG45, National Archives, hereafter cited NA.
8. Valle, *Rocks & Shoals,* 251; Glenn, *Campaigns Against Corporal Punishment,* 37; Merrill, *Du Pont,* 157.
9. Merrill, *Du Pont,* 153; Langley, *Social Reform in the United States Navy,* 115n.
10. Langley, *Social Reform in the United States Navy,* 90; Purser's list, by nationality, W9–1023, Hagley Museum and Library.
11. Du Pont to Sophie, 11 December 1845:352, 358, 18 January 1846:387, W9-988, 13 November 1845: 339–341, W9–970.
12. Du Pont to Sophie, 13 November 1845:339–340.
13. Du Pont to Sophie, 12 October 1845:313, W9–958, 11 December 1845:359, 22 April 1846:440, W9–997.
14. Langley, *Social Reform in the United States Navy,* 163–164, 166; Du Pont to Sophie, 13 November 1845:340–341, 11 December 1845:353.
15. Langley, *Social Reform in the United States Navy,* 141, 167; Herman Melville, *White-Jacket,* chapter 34; Secretary of the Navy Bancroft, annual report, *Senate Executive Documents,* 29th Cong., 1st sess., 1845 (Serial 480), doc. 2:654; Merrill, *Du Pont,* 166; Samuel F. Du Pont, "Colt punishments for secondary offenses, 17 November 1845 to 28 March 1846," 14 December 1845, W9–18470, Hagley Museum and Library, hereafter cited "Colt Punishments." Discussions of colt punishments throughout are based on this source.
16. Walter Colton, *Deck and Port: or Incidents of a Cruise in the United States Frigate Congress to California* (New York: Barnes & Co., 1850), 65; "Record of Punishments inflicted on board U.S. Frigate *Congress,* S. F. Du Pont, Esq. Commander," 23 September 1845 to 26 January 1849, RG45, Old Subject File, NJ, NA, hereafter cited "Cat Punishments." The punishments discussed in this article cover the period 1 November 1845 through 20 June 1846. Two punishments on 31 March 1846 have been added from the USS *Congress* log, RG24, NA. Discussions of cat punishments throughout are based on these two sources.
17. "Cat Punishments," 4 December 1845; Langley, *Social Reform in the United States Navy,* 139–141.
18. Du Pont to Sophie, 12 October 1845:312; Langley, *Social Reform in the United States Navy,* 139–141.
19. Du Pont to Sophie, 11 December 1845:355–356; Du Pont, "Punishments, with cat of nine tails for serious offenses," entry at end of "Colt Punishments," 9 December, 1845.
20. Ibid., Du Pont to Sophie, 11 December 1845:358.
21. Du Pont to Sophie, 11 December 1845:356.
22. Du Pont to Sophie, 11 December 1845:352.
23. Du Pont, "Punishments, with cat of nine tails for serious offenses," entry at end of "Colt Punishments," 9 December 1845; Sophie Du Pont to Samuel F. Du Pont, 15 October 1845.
24. Du Pont to Sophie, 11 December 1845:358–359.
25. Du Pont to Sophie, 11 December 1845:359, 5 January 1846:369, W9–982; Colton, *Deck and Port,* 23.
26. Du Pont to Sophie, 11 December 1845:358–359, 5 January 1846:369.
27. Du Pont to Sophie, 11 December 1845:358–359; Daniel Kennedy, case 986, Thomas Moore, case 987, 31 December 1845, JAG Records, RG125, NA; Valle, *Rocks & Shoals,* 51. Hereafter, discussion of the two court martial trials are based on these JAG records, unless otherwise cited.
28. US Naval Historical Center, *Dictionary of American Naval Fighting Ships* (Washington, DC: US Naval History Division, 1964), 163. This fourth *Congress* was the largest and last sailing frigate designed (1839) for the Navy. See Howard I. Chapelle, *The History of the American Sailing Navy: The Ships and Their Development* (New York: Bonanza Books, 1949), 404.
29. Non-slave holding states, at this period, were passing laws prohibiting free Blacks from testifying in any case where a white person was concerned. Gilbert Thomas Stephenson, *Race Distinction in American Law* (New York and London: D. Appleton, 1910), 36–37.
30. Colton, *Deck and Port,* 314, 318; Langley *Social Reform in the United States Navy,* 254.
31. Greg Dening, *Mr. Bligh's Bad Language: Passion, Power and Theatre on the Bounty* (Cambridge: Cambridge University Press, 1992), 118.
32. Herman Melville, *White-Jacket,* chapter 69; Elizabeth Douglas Van Denburgh, *My Voyage in the United States Frigate "Congress"* (New York: Desmond FitzGerald, 1913), 128–129; James Ore, case 988, 31 December 1845, JAG Records, RG125, NA.
33. Langley, *Social Reform in the United States Navy,* 155–156.
34. Colton, *Deck and Port,* 219–220, 222–223; James Ore, case 988, 31 December 1845.
35. USS *Congress* log, 13 March 1846; "Cat Punishments," 16 March 1846; "Quarterly return of punish-

ments on board ship *Columbus,*" 18 May 1846, *Senate Executive Documents,* 30th Cong., 2nd sess. (Serial 531), Doc. 23:25. These cases call into question the memory of American Rear Admiral Thomas O. Selfridge, who noted in his copy of *White-Jacket* that the "clemency shown towards Jack Chase, after his recapture as a deserter, is not in accordance with experience and usage," in Howard P. Vincent, *The Tailoring of Melville's White-Jacket* (Evanston: Northwestern University Press, 1970), 40.

36. Du Pont to Sophie, 12 October 1845:313; 22 February 1846:412; 1 April 1846:427, W9–992; 22 April 1846:439–440, W9–997; Van Denburgh, *My Voyage in the United States Frigate "Congress,"* 267–268, 274.
37. Van Denburgh, *My Voyage in the United States Frigate "Congress,"* 268, 275–276, 281; "Cat Punishments," 20 May 1846; Langley, *Social Reform in the United States Navy,* 143–144.
38. Du Pont to Sophie, 22 April 1846:439–440; 26 April 1846:441, W9–998; "Cat Punishments," 6 May, 12–24 June 1846; USS *Congress* log, 14 June 1846; Colton, *Deck and Port,* 302–303, 304, 382–383; Du Pont to Sophie, 17 May 1846:469, W9–1000.
39. Du Pont to Sophie, 17 May 1846:450.
40. Langley, *Social Reform in the United States Navy,* 87; Valle, *Rocks & Shoals,* 266–268; "Quarterly return of punishments on board ship *Columbus,*" 23 February to 22 May 1846 and 23 May to 22 August 1846, "Quarterly report of punishments on board frigate *United States,*" 18 August to 18 November 1846 and 18 November 1846 to 18 February 1847, *Senate Executive Documents,* 30th Cong., 2nd sess. (Serial 531), Doc. 23:22–31, 189–195; "Cat Punishments," USS *Congress,* 1 January to 30 June 1846. The *Columbus* crew was never allowed shore leave which would have kept punishments low. Valle, *Rocks & Shoals,* 78–79 mistakes Du Pont's colt punishments for cat punishments, which invalidates his conclusion that in comparison with cat punishments on other vessels, the figures on the *Congress* "are extremely high."
41. Du Pont to Sophie, 17 May 1846:471–472.
42. Glenn, *Campaigns Against Corporal Punishment,* 116–121; Langley, *Social Reform in the United States Navy,* 181.
43. Langley, *Social Reform in the United States Navy,* 174–175, 193, 199; Glenn, *Campaigns Against Corporal Punishment,* 137. Langley's chapter "The end of flogging," 170–206, is an analysis of votes in Congress on abolition of corporal punishment in the navy.

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JOHN LYMAN BOOK AWARDS NORTH AMERICAN SOCIETY FOR OCEANIC HISTORY, 1997

At its annual meeting held in April 1998 in San Diego, California, the North American Society for Oceanic History announced the recipients of its John Lyman Book Awards, which recognize what the awards committee judged to be the best book published in 1997 in each of six categories:

Canadian Naval and Maritime History: *The Many Landfalls of John Cabot*, by Peter E. Pope (University of Toronto Press)

US Maritime History: *Black Jacks: African American Seamen in the Age of Sail*, W. Jeffrey Bolster (Harvard University Press)

US Naval History: *A Signal Victory: The Lake Erie, 1812–1813*, David Skaggs and Gerard T. Altoff (Naval Institute Press)

Reference Works and Published Primary Sources: *Fur Traders from New England: The Boston Men in the North Pacific, 1787– 1800,* edited with notes and an introduction by Briton C. Busch and Barry M. Gough (Arthur H. Clark)

Science and Technology: *Ships for the Seven Seas: Philadelphia Shipbuilding in the Age of Industrial Capitalism*, Thomas R. Heinrich (John Hopkins University Press)

Biography and Autobiography: *A Bride's Passage: Susan Hathorn's Year Under Sail*, Catherine Petroski (Northeastern University Press)

The awards committee of the North American for Oceanic History is composed of James C. Bradford, Chair (Texas A&M University), James M. Morris (Christopher Newport University), William A. Peterson (Mystic Seaport Museum), and Richard Turk (Allegheny College).

Modeler's Notes

PAUL DUSTIN

THE THOMAS HOYNE COLLECTION OF SHIP MODELS

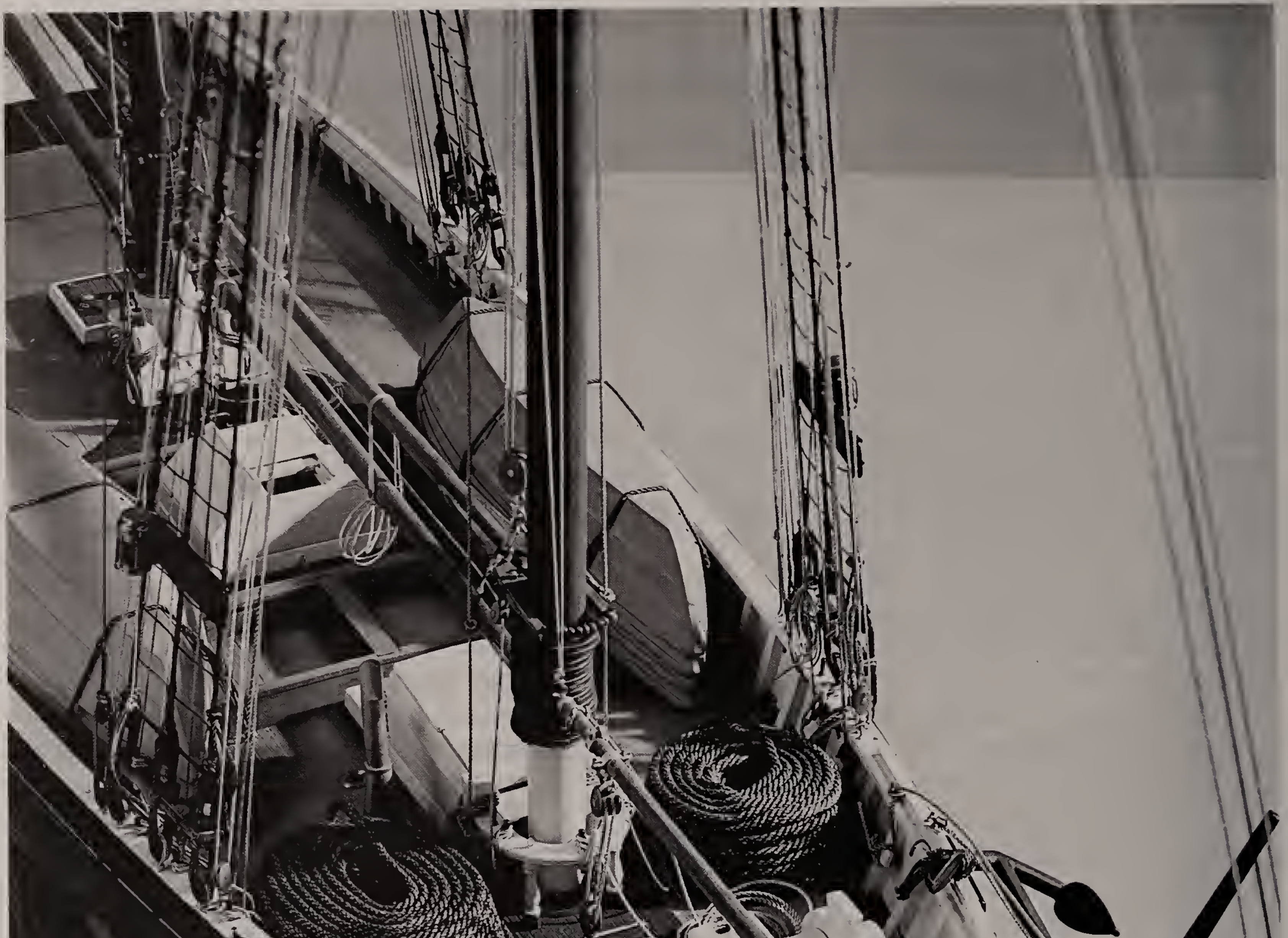
The Peabody Essex Museum of Salem, Massachusetts has an extensive collection of ship portraits, and among these are several by Thomas M. Hoyne III (1924–1989). If after entering the museum you were to walk into the marine fisheries gallery, directly in front of you would be a painting of two fishing vessels at work on the Nova Scotia fishing banks in 1906. This painting, "New Ways on Banquereau" by Thomas Hoyne, depicts a meeting of what was then considered a new breed of fishing vessel, a steam otter trawler, and a traditional wooden schooner, and is one of three Hoyne paintings on display in the gallery. The remaining paintings are "Daily Bread," showing two Gloucester sloop-boats, one of which, *Vesta,* has just dropped off her dories, and "Making Fast," which depicts a doryman from the schooner *Benjamin Thompson* hauling a swordfish alongside his dory.

Upon closer inspection, one is struck by the attention to detail and the realism in Hoyne's paintings. This quality was largely achieved through the use of ship models of a sufficiently large scale to allow such details to be included. Hoyne positioned the model as the ship might have looked to an observer at the time, with all lines and deck gear arranged, as they would have been on a working vessel, and from this setup the painting was created. Rather than rely solely upon text references, photographs, or other information from the past, Tom Hoyne was able to recreate a scene from long ago through the use of historically accurate models. In all, ten models of fishing vessels and two large boats were constructed by Erik A. R. Ronnberg Jr. for Tom Hoyne. Besides being beautifully crafted, the models are distinguished, (1) for their historical accuracy, and (2) for their fineness of detail.

In preparation for the writing of this column, I spent an afternoon with Erik A. R. Ronnberg Jr., who related to me Hoyne's background and Erik's association with him. When Hoyne decided to paint from models he himself began the hull of the first one, *Thomas A. Cromwell,* intending to finish it. He soon realized that he would not have time for both model making and painting, and thus enlisted Erik Ronnberg to complete the model. Erik then went on to construct nine more, beginning with the plumb stem schooner *Harry L. Belden* and ending with the steel steam otter trawler *Surf.* The remaining models in the set are: *Amy Knight,* a Marblehead "heeltapper;" *Essex,* a pinky of 1821; *Arethusa,* a knockabout schooner; *Cavalier,* an "Indian Header;" *Senator Lodge,* a *Fredonia* type schooner; *Stilleto,* a semi-knockabout; and *Vesta,* a Gloucester sloop-boat.[1] In addition, two seine boats were also made as part of the set. All models were constructed to a uniform scale of 3/8-inch to a foot (3/8"=1', or 1:32).

Following Tom Hoyne's death in 1989, the collection of twelve models was obtained from his estate and donated to Mystic Seaport,[2] where until recently they were on display in the Stillman Gallery. Sadly, due to gallery renovations only three of the models and one of the seine boats may currently be seen, with the remaining ones in storage. Nevertheless, *Harry L. Belden,* which is on exhibit well shows the features and detail, typical of the models. This is the vessel which is portrayed in the painting "Last Leg To Gloucester," a print of which forms part of the Mystic exhibit.

As noted in Chapelle,[3] the schooner *Harry L. Belden* was built in 1889 by Moses Adams in Essex, Massachusetts. Her dimensions are given as 105'-9" moulded length at rail, 24'-7" moulded beam, and 9'-10" depth in hold. From these measurements it can be seen that the model is almost forty inches (one meter) long, thus allowing for great detail. The model is rigged as a mackerel seiner, with accompanying seine boat, although *Harry L. Belden* also worked as a halibut fisher in the winter. For an illustration of the detail and Erik Ronnberg's



Harry L. Belden, fishing schooner, rigged model. Scale 3/8" = 1".

workmanship, see the above view of the model's foredeck.[4] Note particularly the anchor windlass with its pump brakes, mast hoops and the working "clutter" with coiled lines. Not shown here but part of the Mystic model is a net with net floats balled up on the midships deck.

My favorite model, however, is the steam otter trawler *Surf.* Although she is not currently on display at Mystic, Ronnberg published a five part series describing her in the *Nautical Research Journal.*[5] Reference to that, particularly the December 1994 issue where she appears on the cover, will show the models' second distinguishing criterion, fineness of detail. Indeed, in her photographs *Surf* looks like the full size steel ship just as she would have appeared right after her completion and before acquiring a worn and rusty appearance from her time at sea. If one could have magically shrunk the vessel to 1/32nd of her size, there would be little discernible difference with the model, such is the fineness and completeness of detail.

During our talk, Erik showed me some of the metal parts made for *Surf.* The process involved first making a pattern and then casting successive parts from a lead free Britannia metal. It is in the patterns where the details were created. To put model dimensions into perspective, it is interesting to note that at the scale that many model makers work (1/8" = 1' or 1/96), one scale inch equals 0.010 inch (0.254 mm), or to put it another way, the thickness of three sheets of paper. For the Hoyne models, one inch became a "more respectable" 1/32 inch. I asked Erik where he obtained the dimensions of the parts and his answer was "from scaling photographs and from old machinery manuals and fittings catalogs where available."

On *Surf*'s forecastle deck are the hand operated anchor capstan, anchor chain and mooring bollards. On the capstan one can see the individual whelps, holes with raised edge mouldings for the capstan bars, and the base ratchet mechanism. To create the assembly, all parts were individually fabricated and then assembled into a workable unit. The capstan rotates on its base. The bollards have the slight taper as they would normally have, and this is also visible on the model. The anchor chain was built up from individually cast links. To produce work of this caliber, the model maker must also be an accomplished miniature machinist. When asked how long it took to create *Surf* with all of her detail, Erik answered, "somewhat over 2,000 hours." It is obvious that the key to this detailed work is careful and painstaking hand workmanship, and that it takes great patience to achieve the necessary sharp lines, part delineations, plank edges, simulated wood graining, and particularly the painting and finishing of the model.

Due to the closing of the Stillman Gallery, Mystic Seaport has set up for viewing in the R. J. Schaefer Building a collection of ship models which includes three of the Hoyne set (or four if we add the seine boat). These are *Harry L. Belden* as noted, *Essex,* and *Amy Knight.* Even though they constitute a reduced set they are well worth seeing, particularly *Harry L. Belden* and its accompanying print of the painting, for which she was used as a model. Philip L. Budlong, Associate Curator at Mystic, informed me that the models will be on exhibition until Spring 1999, at which time a new exhibit, "America and the Sea" will open. This exhibit will include the schooners *Arethusa, Amy Knight,* and *Harry L. Belden,* and the steam otter trawler, *Surf.* He also mentioned that the Hoyne model of the schooner *Cavalier* is on display in the lobby of the Mystic, Connecticut, Hilton Hotel to coordinate with the Schaefer Building exhibit.

Notes

1. Erik A. R. Ronnberg Jr., private communication. I particularly want to thank Erik for a most interesting and awe-inspiring afternoon, looking over the miniature machine parts and fittings which he made, and also the lecture notes regarding Thomas Hoyne which he provided to me for background.
2. Mystic Seaport, 75 Greenmanville Avenue, Mystic, Conn. 06355.
3. Howard I. Chapelle, *The American Fishing Schooners, 1825–1935* (New York: W. W.

Norton, 1973), 170.

4. Photograph of *Harry L. Belden's* foredeck, courtesy of the Peabody Essex Museum, Negative 21,101F.
5. Erik A. R. Ronnberg Jr., "Steam Trawlers Come to the Boston Fishing Fleet", Part One: Design History, *Nautical Research Journal* 39:4, 199–213. This is the first of a five part series in which Ronnberg discusses the introduction of steam trawlers into the Boston fishing fleet at the beginning of the 1900s. It provides excellent material for the ship modeler consisting of Erik's background research and construction details, both for the model and the trawlers themselves. See also the four issues of 40:1–4, 31–45, 89–101, 159–173, 205–221. The accompanying photographs in Part One are particularly informative.

SHIP BUILDING ON THE ESSEX RIVER

Speaking of fishing schooners, many of which were built along the banks of the Essex River in Essex, Massachusetts, it is interesting to note that traditional wooden ship building has returned to the area. Last summer (1997), the 65-foot wooden schooner *Thomas E. Lannon* was launched at the Essex Shipbuilding Museum shipyard. She was designed and built — outdoors in all kinds of weather — by Harold Burnham, on ways at the bank of the river as would have been done long ago. Like the others, she is a working vessel, although in this case offering short cruises out of Gloucester, Massachusetts, along the coast of Cape Ann.

Presently, another vessel is under construction at the yard. She is a 32-foot Chebacco boat, a type of fishing vessel widely used in local fishing at the end of the 1700s and into the early 1800s. From a modeler's standpoint it is fascinating to watch full size plank-on-frame construction going up. She is the *Lewis H. Story* and is being built for the Essex Historical Society and Shipbuilding Museum. I spoke with Don Fraser, the Executive Director of the museum, who told me that she is named for Lewis Henry Story, 1873–1948, ship modeler, designer, and builder, and a nationally recognized historian of Essex shipbuilding. *Lewis H. Story* is being built for the museum as an exhibit to portray the history of Chebacco Parish, present-day Essex, Massachusetts. Other plans are to sail her in a "port of call" program to places such as Vineyard Haven, Mystic Seaport, etc. The target date for her launching is late this summer (1998). As I write this, the framing and deadwood are completed and planking is about up to the waterline. For anyone visiting the eastern Massachusetts area, whether modeler or not, a visit to Essex to see the shipyard in action would be a trip worth taking.

1998 NRG CONFERENCE

This year's Nautical Research Guild Annual conference will be held on 24–27 September at the Governor Morris Hotel & Conference Center, Morristown, New Jersey. This, the Fiftieth Anniversary NRG Conference, will be sponsored by The Ship Model Society of Northern New Jersey. Although the program is not available at this time, details and an agenda will be published in the Nautical Research Journal. As in past conferences, it is expected that technical sessions, a general business meeting, and the annual banquet with after dinner speaker will be included.

Footnote To The 1997 NRG Conference: In my coverage of last year's NRG Conference (*American Neptune* 58/1) I neglected to mention the winners of *The American Neptune* sponsored door prize given out at the annual banquet. Mr. James M. Agnew of Thousand Oaks, California, and Mr. Robert D. Laslocky, Jr. of Westborough, Massachusetts, were winners of subscriptions to *The American Neptune.* Congratulations to you both, and may you enjoy good reading.

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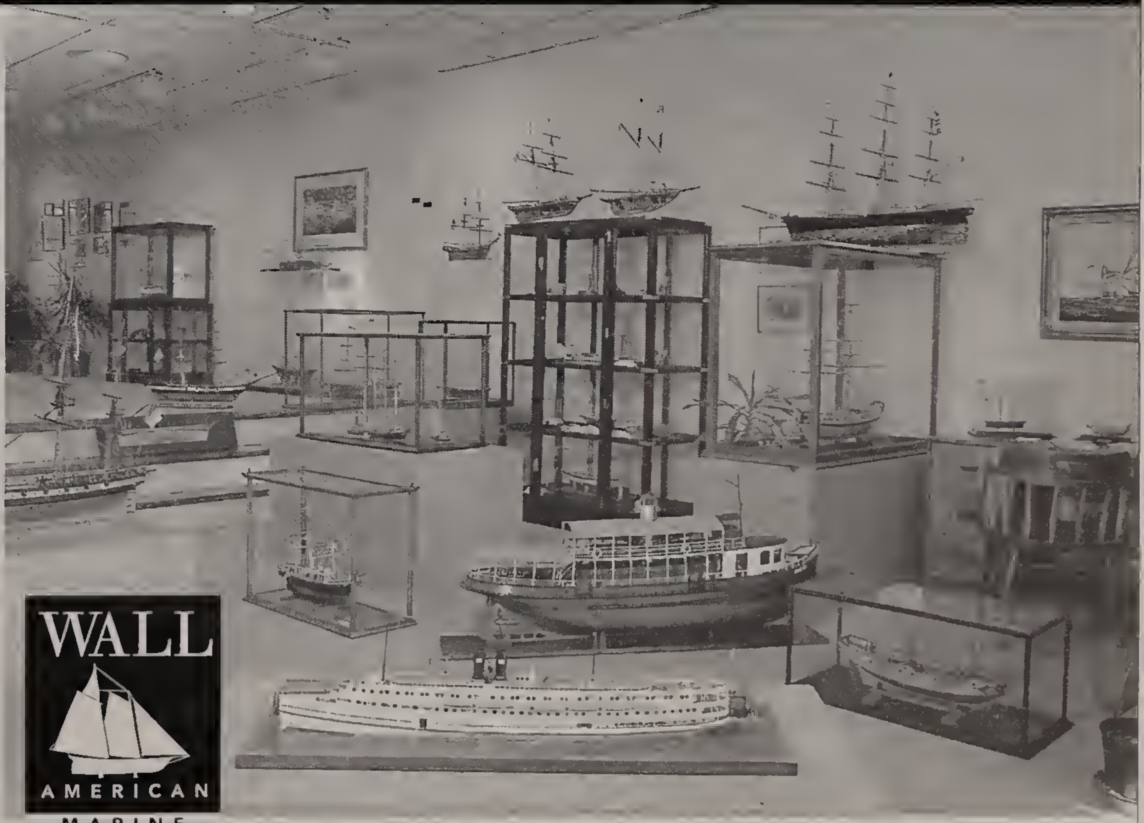

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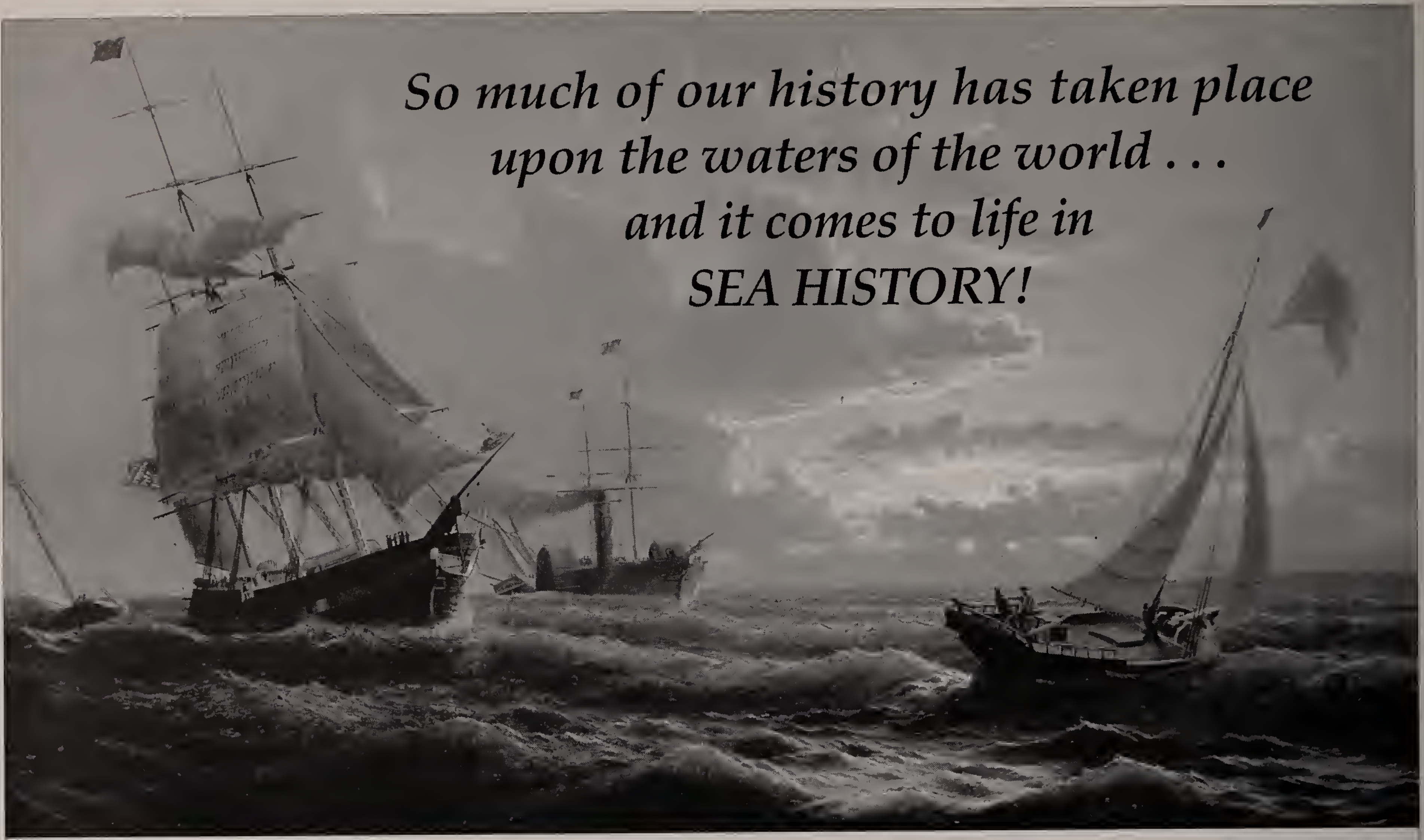
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BOOK REVIEWS

RICHARD FEINBERG, ED., ***Seafaring in the Contemporary Pacific Islands: Studies in Continuity and Change.*** Dekalb, Ill.: Northern Illinois University Press, 1995. 237 pages, illustrations, bibliography, index. ISBN 0-87580-201-X. $35.00.

The greatest maritime diaspora — before Europeans expanded beyond the North Atlantic and Mediterranean — was the spread of Austronesian-speaking peoples over two-thirds of the world's circumference. Starting perhaps from what is now the Fukien Province of Southern China, Austronesians spread to Taiwan, the Phillippines, and Indonesia, then struck out eastward into the Pacific, settling the ocean islands as far as Easter Island, and westward across (or along the periphery of) the Indian Ocean to the great island of Madagascar. This migration, which took place piecemeal between ca. 4000 BC and AD 1000, was accomplished by skilled seafarers sailing in deep-sea voyaging canoes and employing sophisticated methods of navigation.

During recent decades, increasing attention has been paid to the technology and seafaring skills of the descendants of those Austronesians who pushed the human frontier into the Pacific. Intensive studies have been made of navigation among the Central Carolinian atolls of the Federated States of Micronesia, and a few other islands where traditional ways of guiding canoes are still practiced. In Polynesia, the great double canoes of centuries past have been reconstructed and tested over the legendary voyaging routes of this huge region, and a similar revival of building and sailing inter-island canoes is underway in Micronesia's Marshall Islands. At the same time, anthropologists working on islands with only a local, inter-island voyaging system, or islands where traditional voyaging had long ago been given up in favor of traveling in introduced craft, have begun to pay more attention to contemporary involvement with voyaging, even where it is now primarily symbolic and emotional. One of these anthropologists, Richard Feinberg, who has done extensive fieldwork on Polynesian outliers located in Melanesia, felt that these less spectacular manifestations of Pacific seafaring needed to be chronicled. Toward that end, he organized a series of symposia, out of which this volume grew.

Nine papers, plus an epilogue by Feinberg and Ward Goodenough, are included. Three papers, by Maria Lepowsky, Susan Montague, and Harry Powell, focus on how, despite transformations, localized canoe networks for the exchange of traditional valuables, much described by Malinowski in the 1920s, still thrive in the islands immediately to the east of the New Guinea mainland. Moving further east to the Solomon Islands, Edvard Hviding describes how the people of Marovo Lagoon, once famed for their raids carried out in swift, outriggerless paddling canoes, are still masters of their huge lagoon, albeit in fishing canoes or modern craft. Feinberg and William Donner each contribute a chapter to the remnants of canoe seafaring on Nukumanu and Sikaiana, respectively, atolls adjacent to the Solomon Islands which are occupied by small Polynesian populations. Alan Howard historically traces seafaring on Rotuma, a lone island on the western edge of Polynesia, where although canoe voyaging is now but a memory, a great number of the island's men serve as seamen on ships around the world. Lawrence Carucci analyzes the symbolic imagery of the sleek sailing canoes for which the people of the Enewetak Atoll in the Marshalls were once known. Lastly, in a paper from outside the Pacific proper, Gene Ammarell discusses how the Bugis of South Sulawesi (Celebes) still carry commercial cargoes around Indonesia in monohull motor-sailing craft. Although the design of their boats bears strong traces of early European inspiration, their "skin-first" construction and the melding of non-instrument star navigation with the use of the magnetic compass, this seafaring tradition still bears strong traces of the Austronesian past, as well.

Taken together, these studies are a welcome addition to the literature on Pacific seafaring. Whereas such books as David Lewis' *We the Navigators* (1972, 1994), Thomas Gladwin's *East as a Big Bird* (1970), and my own *Voyage of Rediscovery* (1994) provide a detailed picture of traditional Pacific navigation and the sailing of reconstructed Polynesian voyaging canoes, by focusing on the actual state of voyaging in a wide variety of islands, and by going into the symbolic meaning of going to sea even among those who no longer voyage by canoe, this volume helps to fill a wide gap in the literature on Pacific seafaring. Furthermore, thanks to Ammarell's paper and the epilogue by Feinberg and Goodenough, this volume suggests that we need more studies of seafaring in other parts of Austronesia besides the Pacific if we are to begin to understand what happened to this widespread maritime world.

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DAVID A. CHAPPELL, *Double Ghosts: Oceanic Voyages on Euroamerican Ships.* Armonk/London: M. E. Sharpe, 1997. xix + 231 pages, illustrations, map, index. ISBN 1-56324-998-7. $60.75.

The go-betweens, the first members of one society to move into another — La Malinche, the Nahuatl-speaker who was Cortés' right hand woman during the Spanish conquest of Mexico comes to mind — are often extremely important, yet their experience is almost always poorly documented. It is Cortés and Montezuma, the monocultural "big shots," who get into the history books, not the individual between them without whom they could have done nothing but snarl at one another.

There were thousands of people, men usually, like Malinche in the Pacific in the late eighteenth and nineteenth centuries: Polynesians, Melanesians, Micronesians, and what-have-you. For every white who jumped ship to become a beachcomber, there were hundreds of indigenes who volunteered to leave their islands as common seamen, shipped out as noble diplomats, departed to the West to stimulate missionary activity, were exhibited as souvenirs, got guns to bring back home, or were blackbirded to work as plantation laborers. Some were feted in Europe and the Americas as celebrities. Many died of disease, exposure, and gross exploitation. Some returned to utilize their newly-acquired sophistication to marked effect in their home or other islands. Some played crucially important roles in the meshing or grinding of the gears of Pacific peoples and whites. Lots simply dropped through the cracks between the cultures and out of history.

This is a book of their lives, probably about as good a one factually as can be put together from the myriads of sources, almost all by religiously and anthropologically near-sighted Westerners. I would have liked more analysis. The chapters are often long strings of anecdotes which, after a few pages, begin to blur into each other. I would have liked a clearer breakdown by category. Were the experiences of the Polynesians and Melanesians on average different? If so, why? If not, why? Did the Spaniards, French, British, and Americans treat their travelers from the Pacific differently? Were the experiences of the Pacific islanders markedly different in China, South America, Europe, etc.? The quality and quantity of Pacific documentation may make answering such questions impossible, but perhaps they could be supplemented usefully with secondary sources on the relevant continental peoples.

What did the travelers actually *do* as a result of their experiences? To what extent were they architects of the pidgin and Creole languages so vital to the functioning of economies, governments, etc. in the Pacific? Did they play an important role in carrying exotic plants, animals, and diseases from land to land? Many of them died of smallpox and tuberculosis, but not, according to this book, of sexually transmitted diseases — although a great many of their relatives and friends who stayed at home did. If such matters are not dealt with in the primary materials, the reader needs to know this; David Chappell could then have spent a page or two discussing how the first recorders of Pacific history were as shortsighted as they were in the ways that they were.

I am usually put off by anthropological theory, but this books needs some, if only as a means of organization. It contains hundreds of fascinating stories, but what do they mean in total? We in the United States — indeed, we in the world — are launched on a multicultural adventure. The Pacific peoples had such an adventure in the eighteenth and nineteenth centuries. What has their experience to tell us?

I would not fault this book on its basic scholarship, and it will be a standard reference book for years to come. I wish, however, that David Chappell had built, or at least tried to build, a bigger house with such wonderful materials.

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PHILIP PLAYFORD, *Carpet of Silver: The Wreck of the* Zuytdorp. Perth: University of Western Australia Press, 1996. xii + 260 pages, 10 maps, 44 illustrations of which three are in color, endnotes, index. 7" x 10".

Carpet of Silver is a well presented book, available both in hard and soft cover. It deals with one of the most fascinating of all the Dutch East India Company (VOC) shipwrecks. On a voyage in 1711–1712 to Batavia (now modern Jakarta), the *Zuytdorp* departed the Netherlands in company with the *Belvliet* on 27 July and arrived at the Cape of Good Hope on 27 March the following year. This was an extraordinary time for a voyage to the Cape. Ominously for the *Zuytdorp,* out of a complement of 286 men on board, 112 died of sickness; the *Belvliet* lost sixty out of 164. After taking on a replacement crew and transferring the sick ashore, the *Zuytdorp* departed the Cape, never to be seen again. The *Belvliet* arrived safely at Batavia.

In the early 1950s, Philip Playford was a field geologist working in remote areas of Western Australia. He became acquainted with a stockman who worked on a station (farm) in the coastal region. The stockman showed Playford a number of artifacts, including silver coin all dated 1711, that he had recovered from the beach at the base of a cliff in 1927. Thus began Playford's abiding interest in the site. It was obvious that the artifacts came from a wreck. The main clue to the identification of the site was the date on the coins, which were mainly *schellingen* and *dubbel stuiver* from the Middleburg mint. In correspondence with the staff at the Algemeen Rijksarchief in the Netherlands, Playford learned that the Middleburg minting for 1711 was bought by the VOC and consigned to the ships *Zuytdorp* and *Belvliet.*

With the identification of the site, several expeditions were made in the 1950s to investigate the land site. It was not until the 1960s that a dive took place at that site. It was very exposed and subject to the Indian Ocean swell that seems to be particularly strong in this place. For most of the year, the seas are two to three meters or more in height, thus turning the site into something resembling the inside of a washing machine. On very rare days — on some occasions not even one day in a year — the site is calm enough to dive in. It is possible that since the first dive, not much more than twenty days diving have been completed.

The introduction of legislation in 1964 introduced another dimension to the story. The Western Australian Museum became responsible for all historic wrecks on the western coast, including the *Zuytdorp.* Playford describes the Museum's involvement over the years, starting from the first diving operations in 1971, which have continued over the years up to the present day. In addition, he describes the land archaeological work carried out by the Museum.

The last part of the book deals with the speculation of what happened to the survivors. This is perhaps the most unsatisfactory part, since much of it is speculative. For example, it is known that material at the top of the cliff above the wreck site must have been carried there. Playford suggests that some of the crew survived, but the material could have also been carried there by the Aborigines. He describes an account received from the Aborigines in Perth in 1834 describing wreck survivors living in tents and is "confident that this report referred to the *Zuytdorp.*" He does not explain adequately why an account referring to an event 122 years earlier, with other wrecks having occurred since that time, has to be the *Zuytdorp.* Additionally, we have the story that seems to abound in the early colonial days — Aborigines with European characteristics. Again, this is not necessarily the result of the interbreeding of Dutch shipwreck survivors with the local inhabitants (there are three potential Dutch sites where this could have happened). He does not address the issues that Europeans were involved along the coast in the late eighteenth and early nineteenth centuries in whaling, sealing, and pearling. The cave painting at Walga Rock of a vessel with two masts, gunports, and what looks like a smokestack appears to Playford as an illustration of the *Zuytdorp,* not the SS *Xantho,* Australia's first steamship wrecked in 1872 in the same region. He even speculates on the origin of the ochre mined by the Aborigines and used in this painting: "...the enterprise of Dutch could have conceivably played a role in its development."

Playford raises another issue that also has more plausible alternative explanations. *Porphyria variegata,* a genetically transmitted metabolic disease, is common among white Afrikaners of South Africa. The disease has been traced back to a couple married at the Cape in 1688. The presence of the disease in Aborigines in the region of the *Zuytdorp* is suggested to be evidence for the survival of a person on the ship carrying the disease and thus introduced into the Aboriginal population. The suggestion that the disease could have originated via Indonesia — the Dutch, after all, carried the disease there — with the extensive contacts among Aborigines, Europeans, and Indonesians is not addressed. The issue will be resolved only through DNA analyses. This research, while extremely sensitive, is one of the most exciting developments in the much broader issue of the origin of homonids and the Aboriginal peopling of the continent.

Playford spins a fascinating tale. The book is readable and, except for some lapses at the end, is evenhanded and informative. It has no list of figures, but is well indexed, and has 260 pages. A good read.

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WILLIAM J. ANDREWES, ED., ***The Quest for Longitude.*** Cambridge, Mass.: Harvard University Collection of Historical Scientific Instruments, 1996. 437 pages, illustrations, bibliography. ISBN 0-9644329-0-0. $75.00.

The Quest for Longitude contains the papers of the Longitude Symposium held at Harvard University in November 1993. This Symposium was cosponsored by the National Association of Watch and Clock Collectors, and celebrated the tricentenary of the birth of John Harrison, the English horologist who eventually captured the £20,000 prize offered by the British Board of Longitude. Harrison's story has been told many times, but never in such profound detail or from so many perspectives. This large-format book, with its lavish illustrations (many in color) and beautiful design, is a pleasure to read and a joy to behold.

The first section of the book addresses the question underlying the quest: European navigators had been finding their way around the world since the fifteenth century, and European savants had developed a theoretical understanding of what had to be done to solve the longitude problem by the mid-sixteenth century, yet there was no great pressure to solve the problem until the late seventeenth century. David Landes suggests that the pressure came from money and power. In particular, he points to the increasing number of ships, the increasing size of these ships, and the increasing number of countries involved (the demand side of the equation, as it were), as well as the increasing scientific knowledge and technical ability which, together, rendered possible "what had long been visionary" (page 27 (the supply side)).

At the heart of *The Quest for Longitude* are four papers concerning Harrison's work: his early clocks; his first three sea clocks; his prize-winning timekeeper (H.4); and his regulator clocks. Each author brings to this work a thorough understanding of clockwork mechanisms in general, as well as a long-term involvement with Harrison, his clocks (the original designs and the later modifications), and the various accounts of his work. Related papers concern the longitude timekeepers of Christiaan Huygens, and of the leading French and English horologists who, following Harrison, made the marine chronometer a commercial success. In each case, there are clear explanations and diagrams that enable an intelligent reader, with some effort, to understand the basics of the technology.

It is important to understand that Harrison was the first horologist to make a clock that could meet the longitude requirements on land, let alone on a ship at sea. Some of the problems he faced concerned the effect of the variation of temperature on the length of the pendulum (for this he invented the gridiron pendulum) and the viscosity of the available lubrication (this he avoided by using lignum vitae components). Harrison's prize-winning clock was tested on a return voyage from England to the West Indies in 1761–1762, and proved that it could determine longitude to within thirty miles; moreover, it did not lose or gain more than two minutes of time during the course of sixty days (that is, its accumulated error was less than two seconds per day).

Like many artisans, horologists did not usually write much about their inventions. Harrison, apparently because he was determined to win the Longitude Prize, did put pen to paper. However, being terrified of plagiarism, he recorded enough information to establish priority, but not enough to enable other horologists to copy his techniques. Moreover, since he generally worked alone, many of his ideas were said to have died with him. Thanks to the efforts of antiquarian horologists, much of this information has been brought back to light.

Unfortunately, the depiction of Harrison the man is not as sophisticated as the depiction of Harrison the horologist. For all the research that has been done, we still do not know how a carpenter living in a small rural community in North Lincolnshire was able to design and build such elegant and successful timekeepers; thus we term him a "genius." Perhaps he was. Even so, it does not necessarily follow that Harrison succeeded only because he "was able to think and work in isolation, free from the shackles of contemporary traditional thought" (pages 168–169), or that the creativity of professional clockmakers had been "limited" by their training (page 195).

Furthermore, one might question the argument that Harrison solved a problem "that had eluded the greatest scientific minds for more than two centuries" (page 195). Without insisting on an absolute division between head and hand, one can still recognize that scientist technicians generally had different sets of skills. At the same time that Harrison was building his timekeepers, astronomers and mathematicians were making the observations and developing the theories that would yield astronomical solutions to the problems. One notable paper in the book concerns the satellites of Jupiter, which were first seen by Galileo on 7 January 1610 and which, by the end of the seventeenth century, were proving spectacularly successful for finding longitude on land. Another concerns the developing mathematical techniques that were needed to construct a theory of the moon's motions that was sufficiently accurate for a lunar distance method of longitude determination. Two other articles concern proposals to solve the longitude problem, one focusing on reasonable solutions, and the other on "nutty" solutions.

Since *The Quest for Longitude* contains so much material, it might seem churlish to ask for more, but since it contains so much, readers might not realize that it does not cover the whole story. These include Galileo's efforts to build reliable timekeepers for use at sea, the three good clocks to be used to "precisely observe the longetude of every place bothe by Sea and land" mentioned in the Instructions to be observed by Thomas Bavin on his voyage to Virginia in 1582, and the longstanding relationship between longitude and celestial cartography.

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ELIZABETH M. NUXOLL AND MARY A. GALLAGHER, EDS., ***The Papers of Robert Morris, 1781–1784, Volume 8: May 5 – December 31, 1783.*** Pittsburgh: University of Pittsburgh Press, 1995. lxix + 948 pages, illustrations, appendices, index. ISBN 0-8229-3886-3. $100.00.

When Robert Morris died in 1806, having spent the five years since his discharge from debtor's prison living off the charity of his friends and relatives, his most valuable legacy was probably his collection of papers. His heirs appear to have maintained the collection intact until the 1860s, when it scattered. During this century, much of the surviving material has found safer homes in research libraries and repositories, most notably the Library of Congress and the National Archives, but a large part of the collection has been lost or destroyed, particularly his files of incoming correspondence.

In 1968, work began on the task of uncovering, transcribing, and editing for publication Robert Morris' papers from his period of service as Superintendent of Finance. Almost thirty years after the initiation of the project, its completion is at hand. Only one final volume, covering 1784, and a microform supplement are still to come.

Volume 8, the penultimate, covers an important period in Morris' career and the nation's history. With peace and American independence assured, both Morris and all Americans had to adjust to their new situation. His papers document the problems of liquidating the infrastructure that had underwritten the war effort and reshaping it to suit a peacetime establishment, determining the appropriate and desirable structure of the nation's future government, and refocusing American economic activity upon the entrepreneurship necessary to facilitate recovery and assure future prosperity.

Nuxoll and Gallagher wisely decided to expand the range of material included in the edition to better illustrate this transitional period. Earlier volumes included Morris' complete diary and as complete a collection of his official correspondence and responses as possible. This volume incorporates, in addition, a substantial body of his personal business papers, demonstrating the range of his activities in the economic development of the new nation, and his own transition from public servant to private entrepreneur.

For maritime historians, the contents of this volume are a treasure trove of invaluable material. A separate appendix is devoted to documents pertaining to the voyage of *Empress of China* to Canton, the first such American enterprise, while many of his other ventures into international trade emerge from material in the body of the work. Moreover, Morris played a prominent role as Agent of Marine in the demobilization of the Continental Navy. Many of these papers reveal the porosity of the demarcation between public and private service in this time of transition as naval officers and government vessels engage in commercial activities and move effortlessly between official and civilian employment.

Few readers would consider perusing business or official papers an entertaining pastime. Nevertheless, Robert Morris' correspondence reveals once again the ability of so many eighteenth century men of affairs to display an almost poetic bluntness in expressing their intentions and ideas. While it would be foolish to recommend this work as light reading, such pithy delights as his reference to those counterfeiting his notes as "The Knot of Villains" (24

July 1783 to Elias Boudinot, President of Congress) abound in his writing. Morris the individual emerges clearly from this official correspondence.

Nuxoll and Gallagher and their collaborators have produced in this volume, and indeed the series to date, a work that epitomizes the best in documentary publication. It is carefully researched, coherently and systematically organized, thoroughly documented, and cogently presented. Moreover, this is more than simply an invaluable resource for students of the revolutionary and early national periods. The brief introductory essay provides both as clear a contextual framework for the papers as one could desire and a delightful analysis of Robert Morris' role in the United States' transition from war to the construction of an independent nation which could serve as a model for many a historian seeking to write a study of this era. *The Papers of Robert Morris* cannot be too highly recommended.

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ALEKSANDR IVANOVICH ALEKSEEV, *Feodor Petrovich Litke*, volume 10 of the *Rasmuson Library Historical Translation Series*, edited by Kathy Arndt, translated by Serge LeComte. Fairbanks: University of Alaska Press, 1996. 226 pages, charts, maps, illustrations, index, bibliography. ISBN 0-912006-86-2. $18.00.

The University of Alaska Press has published a very capable translation of A. I. Alekseev's 1970 biography *Feodor Petrovich Litke*. It is another solid, fully documented contribution to the Rasmuson Library Translation Series, which is making available important Russian works on North Pacific exploration and ethnography. Litke had a remarkable career as an explorer, hydrographer, and geographer that brought him international recognition and advancement in position and rank. He later became tutor of the Grand Duke Constantine, founded the Imperial Russian Geographic Society, and served as president of the Russian Academy of Sciences. Still, he is best remembered for his accounts of his four voyages to Novaia Zemlia from 1821 to 1824, and his voyage around the world from 1826 to 1829, which featured exploration of the North Pacific.

Alekseev's work is the only full length biography of Litke available in any language. It is grounded on thorough research in Russian archival and manuscript collections and on careful analysis of Litke's own works. A welcome addition to the literature on Russian exploration of the northern seas, Alekseev's biography is particularly satisfying to those who have been tantalized by V. P. Bezobrazov's unfinished work, *Graf Feodor Petrovich Litke,* published in Saint Petersburg in 1888, that included Litke's autobiography in its appendix.

Alekseev's early chapters recount how Litke overcame his unpromising beginnings. Although his family had gained some prominence in the navy, he was neglected after his mother's death and his father's remarriage, and prepared himself for service. In 1814, he won a combat decoration and promotion to midshipman. In 1817–1819, he joined Captain V. N. Golovnin's expedition aboard the *Kamchatka* to supply the Russian America Company in the North Pacific, and to explore and chart a portion of the northwest coast of America.

As a lieutenant, Litke took command of the naval brig *Novaia Zemlia.* He completed four voyages to Novaia Zemlia and surveyed the Murmansk coast. He wrote up his findings in *Four Voyages to the Northern Arctic Ocean... Aboard the Naval Brig,* Novaia Zemlia, *in 1821, 1822, 1823, and 1824,* which was published in Saint Petersburg in 1828 and translated into German in 1835. Litke added enormously to the knowledge of the northern seas and earned recognition, promotion, and command of another voyage described in his second book, *A Voyage Around the World... Aboard the Naval Sloop,* Seniavin, *in 1826, 1827, 1828, and 1829,* published in Saint Petersburg in 1834 and translated into French two years later. It describes his efforts to map sections of the northwest coast of America, his voyage to Novaia Arkangelsk and across the Aleutians, his efforts to chart sections of the coast of the Kamchatka Peninsula, and his voyage to the Bering Straits.

Descriptions of Litke's voyages constitute the central chapters of Alekseev's biography. They are of considerable value to readers with an interest in the history of maritime exploration in the early nineteenth century, particularly because Litke's own works are not readily available, and neither has been translated into English. The University of Alaska Press has performed a service to scholarship, because this well documented biography will introduce and guide others who wish to delve deeper into his activities as an explorer, hydrographer, and ethnographer.

Some readers may find Alekseev's concluding chapters less interesting, for they describe the remainder of Litke's career when his talents were directed toward the demanding task of preparing the Grand Duke Constantine to become the chief of the Admiralty. Afterwards, he commanded the naval bases at Reval and Kronstadt, was promoted to admiral, then appointed to the Admiralty Board and to the Council of State. Still, Litke is best remembered for his own scientific work and his dedication to scholarship which he assisted first as founder of the Imperial Russian Geographical Society, and later as the president of the Russian Academy of Sciences for two decades. Alekseev's biography has shown all the dimensions of this important and neglected historical figure of nineteenth century Russia. It will no doubt be very durable, and this translation will give it the wider exposure it deserves.

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ADRIAN CARUANA, ***The History of English Sea Ordnance 1523–1875,*** **Vol. II:** ***The Age of the System, 1715–1815.*** Ashley Lodge, Rotherfield, East Sussex: Jean Boudriot Publications. xiii + 500 pages, 200 illustrations, 100+ tables, index. ISBN 0-948864-22-2.

The Age of the System, 1715–1815 is the second volume in Adrian Caruana's projected three-volume study of Royal Navy ordnance from 1523 to 1875. The third volume, *The Age of Change,* will treat the years 1815 to 1875 and end with the introduction of breech-loading rifled ordnance aboard Royal Navy ships. Caruana plans later to bring out a fourth book, separate from the three in the series, that will list all issuances of ordnance to individual Royal Navy vessels in the eighteenth century.

Adrian Caruana is the former curator of ordnance at Chatham Historic Dockyard. He served both in the Royal Navy, and for twenty-five years was an officer in the Royal Artillery. He is a leading authority on English naval ordnance as well as an expert on the firing of historic ordnance.

The second volume in the series is almost twice as long as the first and much better done. It begins with the introduction of the Borgard designs of 1716, covers all variants of the Armstrong guns up to 1760, and ends with the introduction of the 1787 Blomefield pattern guns. It also treats a number of lighter pieces introduced in the course of the eighteenth century, including the Sadler gun, the Gover gun and the Congreve gun. Particularly noteworthy is Caruana's discussion of the carronade. He devotes more than fifty pages to the development, design, and employment of this revolutionary short, large-bore gun designed to project a ball at low velocity to have great smashing power at short ranges. This is undoubtedly the longest and most complete treatment of the carronade to appear in print. Caruana also includes a chapter on "Rockets, Mines, Machines, Torpedoes, and Other Infernal Devices," and he has included drawings of ciphers in use on sea service guns of the period. Another chapter treats the design of naval gun carriages. Five major chapters treat the principal wars of the Period: the War of Jenkins' Ear; the Seven Years' War; the American War of Independence; the [French] Revolutionary War; and the Napoleonic War. He gives the armament of each type of ship in these wars. Students of naval history will be pleased to see that Caruana has included not only the larger ships but the often overlooked vessels, including bombs, hospital ships, and even prison ships, receiving ships, and transports.

The chief failing in this otherwise excellent book lies with the publisher. Boudriot Publications, the highly acclaimed publisher of marine books, has run some of the most important line drawings of individual guns across two pages, rendering them largely valueless. This is a large (9"x12") book and these illustrations could easily have been run vertically on one page only.

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HARRY JONES AND TIMOTHY JONES, *Night Boat on the Potomac*, Edwin L. Dunbaugh and John H. Shaum, Jr., eds. Providence: Steamboat Historical Society of America, 1996. cxxii + 117 pages, 8 deck plans, 35 photographs, 8 illustrations, map, epilogue, appendices, index. 11¼" x 8¾". ISBN 0-913423-08-4. $38.00.

It is common practice that those whose job it is to review a book write almost exclusively about the book. Nonetheless, I cannot refrain from breaking the rule in the case of *Night Boat on the Potomac.* Most of the excitement and romance of my growing up years was derived from sailing aboard the large white steamers of the Norfolk and Washington Steamboat Company. Although I knew the steamers intimately — from the freight deck to the pilot house and everything in between — I had no knowledge of the history of these magnificent vessels.

Not so for the late Harry Jones, collector extraordinaire, who spent a lifetime amassing the material for the book. With his grandson, Timothy, he presents a comprehensive history of the steamboat era, beginning with *Washington,* built in New York in 1813 by Charles Brownne, the builder of Robert Fulton's *Clermont,*the earliest commercial steamboat to sail on the Hudson River.

Constructed five years after the *Washington,* the steamer *Potomac* was the first to run regularly the full distance between Washington and Norfolk. "It was on one of her trips down the James River that *Potomac* experienced her first serious accident. Sunday, March 15, 1829, found *Potomac* making her usual all-day run from Richmond to Norfolk.... Toward sunset, as she was passing Hampton, Virginia, *Potomac* came to a stop in the river to board some passengers who had been rowed out from shore in a small boat. Just as *Potomac* was starting to pick up speed again, her boiler exploded, breaking the evening's peaceful Sabbath calm with a thunderous blast." When the steamboat had come to a stop, the engine crew had neglected to let off steam as they had been instructed to do by the captain. None of the passengers were injured, but four crew members died from the effects of steam inhalation.

Another accident, although not as serious, occurred when Washington dignitaries were aboard the *District of Columbia* on their way to Newport News to the launching of a naval ship. "On the evening of April 26, 1937, when Captain Edward H. Eaton ordered her to cast off from the wharf at Old Point Comfort and head out toward Chesapeake Bay, *District of Columbia* was completing the final leg of a government charter.... Aboard... were a number of congressmen and also John Nance Garner of Texas, then Vice President to Franklin D. Roosevelt.

"As First Officer Harry E. Slye was later to recall, the wind was 'blowing like everything... the seas were rolling and we were jumping'... as *District of Columbia* approached Thimble Shoals, where there was always a fast current." As Slye altered her course to port to put the vessel on her normal track up the Chesapeake Bay, the ship came about, dipped deep into the trough of an especially large wave, and suddenly lurched hard over on her starboard side right toward the oncoming wave. She hung there for what seemed like an eternity, according to Slye. Once the ship righted herself, it was discovered that she was a shambles, with over-turned furniture in the saloons, smashed crockery, and many green-looking congressmen. When the captain finally made his way to the dining saloon, he encountered a wide-eyed Vice President Garner clinging to the stanchion. "This goddamn thing is harder to ride than a Texas jackass!" he informed the captain.

From the first steamboat built for the Potomac River to the burning and sinking of the Norfolk and Washington's *District of Columbia* in Baltimore's Curtis Bay in 1971, Harry and Timothy Jones chronicle in fascinating detail the sailings, collisions, fires, and storms of the 168-year history of the night boats on the Potomac River.

The book is a well written, striking account of a bygone day. It is definitely for those who love maritime history.

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HERSHEL PARKER, ***Herman Melville: A Biography, Volume I, 1819–1851.*** Baltimore and London: Johns Hopkins University Press, 1996. 941 pages, illustrations, index. ISBN 0-8018-5428-8. $40.00.

As an author, Herman Melville never left the sea. From his first book, *Typee,* to his last, *Billy Budd, Sailor,* the sea served him as setting, powerful symbol, and rich source of metaphor. This ubiquity stems largely from his youthful experiences as a sailor, first aboard a commercial vessel, then on whaleships, and finally for a cruise aboard the frigate *United States.* Later in his life, less significantly, he was several times a passenger on deep-water voyages. This first, massive volume of Hershel Parker's two-volume Melville biography, remarkable for its many contributions to our knowledge and understanding of Melville's life, includes his seafaring years, but scants the sea's deep importance.

The basic outline of his early experiences is probably familiar to many readers. Born in 1819 into American aristocracy on both sides of the family, the poor and minimally educated Melville, whose father died when Herman was twelve, first went to sea at age sixteen aboard the packet *St. Lawrence* on the New York-Liverpool run. In 1841, after teaching in a country school and clerking in a store and a bank, he shipped aboard the *Acushnet,* sperm whaler of New Bedford, for an expected three to four years. Jumping ship in the Marquesas, he spent a few weeks living with the Typee tribe but then, by way of two other whaleships and after some months in the Hawaiian Islands, came home on the *United States* in 1844. In 1846 he published *Typee.* In 1847 he married and produced a second book. By the end of 1851, where this volume leaves him, Melville was the famous, financially-troubled author of six books and the father of two children.

Parker's is an immensely rich study of Melville's life to age thirty-two, perhaps definitive in its use of all the surviving evidence. Parker, whose lifelong work on Melville has included textual scholarship and literary criticism as well as biography, and who has been referred to as the "dean" of Melville scholars, has a passion for any and all surviving detail. As the editor of the forthcoming revised and greatly expanded *The New Melville Log* (the original was published by Jay Leyda in 1969), a documentary life of the author, he has had access to all written evidence known to survive. From this heap of material, Parker minutely contextualizes Melville in his extended family, friends, acquaintances, residences, etc., with astonishing and even, at times, wearying thoroughness.

For readers whose main interest is the sea and life thereon, this biography may prove disappointing. The main problem is that for Melville's years as a sailor, little evidence survives. The sources for those years are the abstract log of the *Acushnet,* other whalers's logs, crew lists, Melville's own annotations in Owen Chase's famous narrative of the sinking of the whaleship *Essex,* family letters, newspapers, official papers of various sorts, and evidence from Melville's writings. For example, "How Melville experienced the voyage [of the *Acushnet* from Massachusetts to the Marquesas] day by day, is wholly undocumented" (page 205). Of all the men with whom he sailed, only one is known to have written anything about him. Parker evokes Melville's activities aboard ship and his experiences ashore, but much of what he writes is necessarily speculative.

This book is full of pertinent, valuable detail if one's interests include the conditions under which Melville wrote, and the books deriving from his early maritime experiences: *Typee, Omoo, Mardi, Redburn, White-Jacket,* and *Moby-Dick.* Making fine use of evidence, including the few surviving literary manuscript fragments, Parker contextualizes these books and Melville's writing of them more fully than has anyone else. What was the young man doing and thinking as, in five years, he wrote and published six large books? Parker probably takes us as close to the answers as we are likely to get, although literary creativity, like the great white whale, may be approached but not captured.

In a famous line in Chapter 24 of *Moby-Dick,* Melville's autobiographical stand-in, Ishmael, says that "a whale-ship was my Yale College and my Harvard." Given the library and the literarily-inclined shipmates aboard the *United States,* it would have been more accurate to ascribe that honor to an American frigate. In an often-quoted letter to Nathaniel Hawthorne, Melville said, "Until I was twenty-five I had no development at all. From my twenty-fifth year I date my life." That year may have been, as Parker aptly suggests, the one spent on the *United States,* leading up to Melville's twenty-fifth birthday. Further and subtler evocation of the sea and life on it would have been welcome.

Massive or not, no book can do everything. Parker can be faulted (and has been by other reviewers) for handling the lack of direct evidence by expressing possibilities and suppositions as facts. Some readers dislike this seeming to have used every surviving scrap of material, directly pertinent or not. Others will wonder if all the assembled facts and contexts actually help explain the spirit of Melville's writings — those books that no doubt bring the reader to this biography in the first place. These are all reasonable criticisms, but in light of the whole they are minor. For example, while one can quibble about Parker's focus on sex and sexuality in Melville's life, it is undeniable that the subject suffuses his books. While this may not be among the world's great biographies, it does, with great honesty, bring us as close to the spirit of the man who was Herman Melville as Parker can by the light of his deep scholarship and enthusiastic engagement. As we go on reading Melville, many of us will turn to Parker for decades to come, and we will be well rewarded.

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DIRK ANTHONY BALLENDORF AND MERRILL LEWIS BARTLETT, ***Pete Ellis: An Amphibious Warfare Prophet, 1880–1923.*** Annapolis: Naval Institute Press, 1997. 213 pages, index, illustrations, maps, bibliography. ISBN 1-55750-060-6. $26.95.

Dirk Anthony Ballendorf and Merrill Lewis Bartlett, both winners of the prestigious Robert D. Heinl, Jr. Award in Marine Corps History, obviously did a first-class job of researching their subject — and they tell a story very well. However, the result is disappointing in that the book does not deliver what it seems to promise in the title, a primer on early amphibious warfare and the US Marine Corps' role in its development. Instead, they present, as promised, a biography of a midlevel Marine Corps professional of the first quarter of this century coupled with a jigger of suspense over his "mysterious" death in one of the Japanese Pacific Island mandates. Interwoven in the tale is some interesting information on the maturation of the Marines from seagoing police force to formidable light infantry during the period from the Spanish-American War through the first few years of the post-WWI era. There is a lot in the book about Marine Corps careerism and service politics, and a lot more about Pete Ellis' alcohol addiction. Only part of one chapter, the fifth, deals with amphibious warfare, and then only briefly in the context of Ellis' contribution to the now obscure 1921 war plan called "Advanced Base Operations in Micronesia."

Unless you are a Marine Corps buff who bleeds blue and gold, give this one a pass.

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WINIFRED QUICK COLLINS WITH HERBERT M. LEVINE, ***More than a Uniform: A Navy Woman in a Navy Man's World.*** Denton, Texas: University of North Texas Press, 1997. xxiii + 229 pages, appendix, biographical information, index. Paper. ISBN 1-57441-022-9. $16.95.

More Than a Uniform is Winifred Quick Collins' personal story of her rise to prominence as the chief of naval personnel for women in 1957, then the Navy's top female billet, but it is the story of women in the Navy, too. Her book joins the recently published personal reminiscences and unofficial histories of women in the military that have been inspired by the fiftieth anniversary celebrations of World War II, by the armed forces, and by the desire to let memory speak some fifty-five years later.

Born in 1911, Winifred Collins' childhood was one of affluence followed by hardship and adversity. Literally on her own as a teenager, she was a student at the University of Southern California and later attended the Harvard-Radcliffe graduate program in administration. This experience served as an entree into the Navy as President Ada Comstock of Radcliffe College tapped her to join the newly established Women's Reserve, the WAVES, during the summer of 1942. Her experience in personnel and job classification was just what was needed. Reluctantly, at age thirty-one, she joined the Navy. From that time on, the Navy was her career and her life. Military service opened up a career path for her that most of her female counterparts were unable to replicate in the private sector at that time.

Captain Collins tells her story with humor and candor, including her being taken for a spy when Admiral "Bull" Halsey stopped by a luxurious weekend retreat in wartime Hawaii inhabited by WAVE officers who he thought were planted there to obtain military secrets. She presents a balanced and realistic account of the drawbacks and the benefits that women encountered in the Navy during the 1940s and 1950s, not glossing over the prejudice and unfair treatment they faced because of gender, in their quest for advancement, nor ignoring the fact that Navy women held administrative positions denied them on the outside and commanded equal pay for equal work in a time when wage discrimination was rampant.

During a career of twenty years in personnel administration billets, Captain Collins was in a position to influence and transform Navy policies with regard to women officers and enlisted rates. As Chief of Naval Personnel for women from 1957 to 1962, she worked tirelessly to recruit the best women for the regular Navy and reserves, develop education, training and leadership programs that would lead to career enhancing billets and promotions for women, abolish the quota on women officers, and bring enlisted women into the officer corps, all of this long before the women's movement began. She had to counter sexism within the ranks, negative attitudes of politicians and civilians regarding women in the Navy, and problems specific to the service such as morale, housing, recreation, recruitment, and the lack of advancement. She attacked these problems with consummate professionalism and skill and, with the help and support of the Navy's senior officers and sympathetic politicians, she prevailed. The women of this era are indebted to her as she has always championed their cause.

When Captain Collins retired in 1962 after her marriage to a retired rear admiral, she continued her involvement in Navy activities, serving as the vice-president and director of the US Navy League, the national director of the Retired Officers Association, as trustee of the US Naval Academy Foundation, and in other civic activities. All of these offices were firsts for women.

A courageous woman of talent and high achievement, Winifred Collins acknowledges that dramatic changes for Navy women began in the seventies as a result of the women's movement and societal demands to which the military responded, but it was pioneers like herself who, despite the odds, paved the way.

The book contains a praiseworthy foreword by the late Admiral Arliegh Burke, a selection of career photographs of Collins, and biographical information in the appendix. For those interested in the history of women in the Navy and Collins' own remarkable story, this is a readable and entertaining volume.

EVELYN M. CHERPAK
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SHORTER NOTICES

DAVID L. CIPRA, ***Lighthouses, Lightships, and the Gulf of Mexico.*** Alexandria, Virginia: Cypress Communications, 35 East Rosemont Avenue, Alexandria, VA 22301, 1997. 280 pages, numerous illustrations, index, bibliography. Paper. ISBN 0-9636412-1-2. $24.95.

KAREN T. BUTLER, ***Nantucket Lights: An Illustrated History of the Island's Legendary Beacons.*** Nantucket: Mill Hill Press, 124 Orange Street, Nantucket, MA 02554, 1996. 137 pages, numerous illustrations, some in color. ISBN 0-9638910-6-5. $44.95.

Two books quite different in format will appeal to lighthouse buff and historian alike. The late David Cipra had a long career with the Coast Guard and its lighthouse responsibilities. In this carefully researched volume, he outlines the history of the eighty lighthouses built on the Gulf Coast between 1811 and 1939. He does not count lightships. The history of each, with a photograph or drawing, is provided in detail by an expert whose lifelong love of his subject clearly shows in what will now be the definitive reference volume on the subject.

Karen Butler's work is also a labor of love. It is more the "coffee-table" category of book: oversized, with its focus upon the numerous photographs (some by the author) and paintings of the island's lighthouses and lightships. Nevertheless, she has done her homework, and the substantial text offers much interesting historical information. Indeed, the inclusion of examples from lightkeepers' logs and other sources makes this book the sort that, once begun, is most difficult to put down. Both works from small presses belong in any comprehensive lighthouse collection.

DAVID J. STARKEY, E. S. VAN EYCK VAN HESLINGA, AND J. A. DE MOOR, EDS., ***Pirates and Privateers: New Perspectives on the War on Trade in the Eighteenth and Nineteenth Centuries.*** Exeter, Devon: University of Exeter Press, 1997. xii + 268 pages, illustrations, index. ISBN 0-85989481-9. $70.00.

The fourteen papers in this collection were presented at a conference in the Netherlands in 1991, and cover a considerable range of interesting topics. Each is by an expert, and is provided with full citations. Robert C. Ritchie, Markus Rediker, and David Starkey treat various aspects of piracy in the Atlantic, while Gonçal López Nadal takes up the Mediterranean from 1715–1856. French (Patrick Crowhurst), Dutch, (Corrie Reinders Folmer; Jan van Zijverden), Belgian (Jan Parmentier), and Danish (Ole Feldbaek; Erik Goebel) privateering and shipping all receive consideration. Faye Kert deals with North America in the War of 1812. Finally, Dian Murray, Ghislaine Loyré, and J. L. Anderson each consider an aspect of the Eastern Seas, including China and the Philippines. Altogether, it is an important collection in an era where the scholarly literature has tended to be rather limited.

DAVID STEVENS, ED., ***In Search of a Maritime Strategy: The Maritime Element in Australian Defence Planning Since 1901.*** Canberra: Strategic and Defence Studies Centre, The Australian National University, Canberra, ACT 0200, 1997. xviii + 252 pages, bibliography, index. Paper. ISBN 0-7315-2715-1. $A24.00.

The eight papers in this collection were the product of a seminar held in Canberra in 1996, and together provide considerable information on the Royal Australian Navy (RAN). John Hattendorf usefully leads off with a definition of maritime strategy. David Horner discusses the army's role in Australian defense; Ian Cowman writes on the Australian role in imperial strategy, 1911–1923; and David Stevens on the RAN's strategy, 1921–1942. John McCarthy adds a paper on air power, 1911–1954, and Jeffrey Grey on the RAN from 1975–1995. Two final papers by Stewart Woodman and Rear Admiral C. J. Oxenbould return to the general problems of maritime strategy. The second section of the book (pages 151–225) offers extracts from sixty-six key documents from 1901 to 1996.

BRITON C. BUSCH
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CORRECTIONS

On page 72 of Volume 58, No. 1, the reviewer's name should have been shown as Professor Kathleen Browne Williams, not Wilson.

Frank Braynard, author of "Drawing — I Love It!" (*American Neptune* 58:1) wrote:

> I was distressed to note that in the very fine presentation of my article, the captions are mixed up for two of my pictures. On page 55, the picture shown is the *Asama Maru,* but the caption is for my drawing of the *Statendam.* As a result, the caption for the *Statendam* drawing carried on page 56 is the one that should have been used for the *Asama Maru.* I know you will be equally distressed.

To Professor Williams, Dr. Braynard, and our readers, we at *The American Neptune* are indeed distressed by these errors. We extend our sincere apologies for any inconvenience we may have caused.

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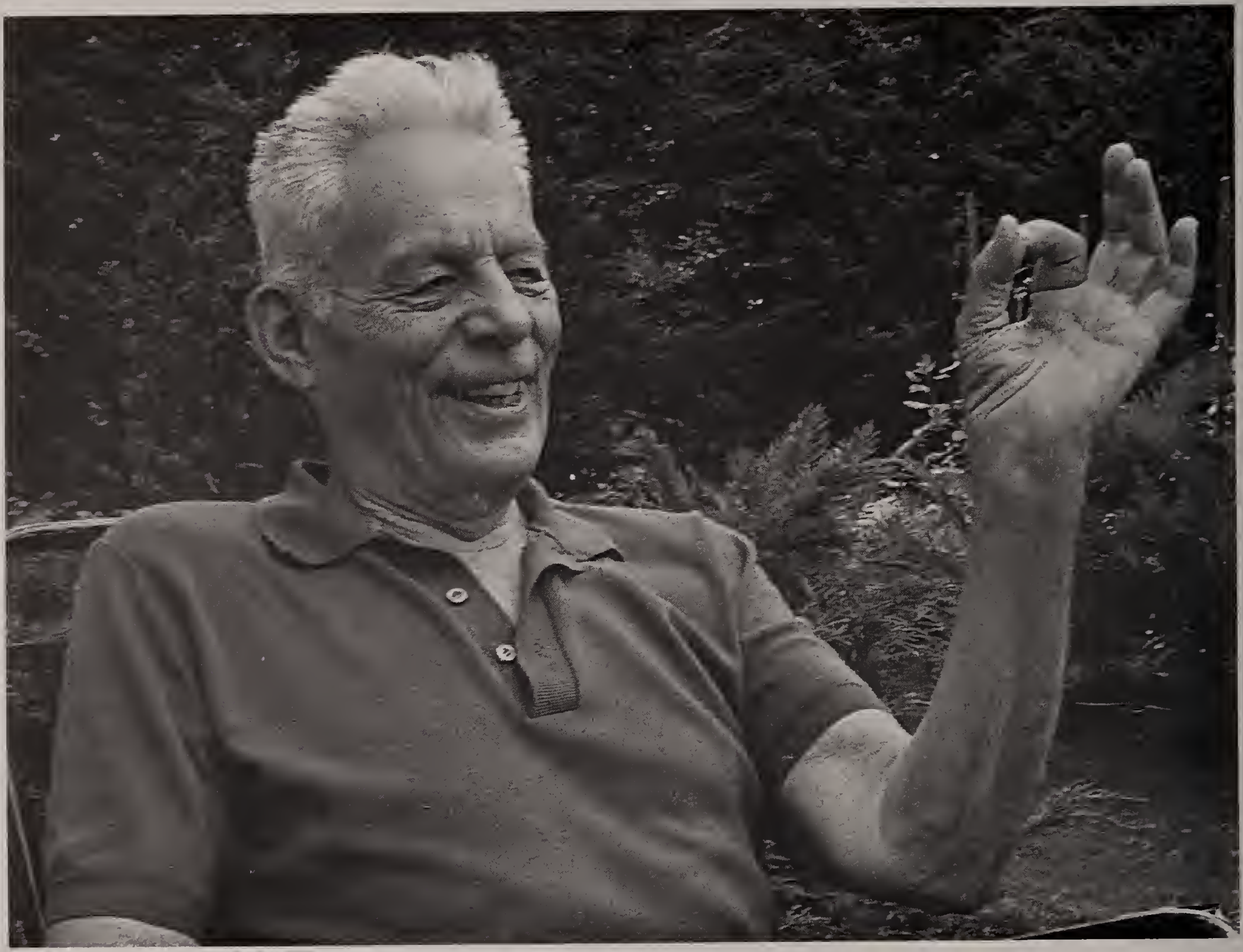

The Francis B. Lothrop, Jr. Awards for 1998 will continue its tradition of encouraging authors to explore the varied aspects of maritime history and arts by awarding prizes in the following categories:

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